

HIDEX



Standards for LSC

Version
19.5.2020

Standards for LSC

Hidex provides

The unquenched and quenched standard sets are manufactured for Hidex by Eckert & Ziegler. They are prepared gravimetrically from NIST traceable solutions. After preparation, all standards are QC tested with calibrated counting system of Eckert & Ziegler. Uncertainties are estimated using the guidance in NIST Technical Note 1297, "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results".

The radioactivity levels of the ^3H and ^{14}C components of these standards are far below the threshold levels specified in the International Air Transportation Administration (IATA) regulations pertaining to Dangerous Goods and are therefore not classified as radioactive material in transportation. The deliveries include QA test certificate and MSDS.



Unquenched LSC Standard Set of ^3H , ^{14}C and Blank

A set contains ^3H , ^{14}C , and a background sample. Standards are prepared gravimetrically from NIST traceable solutions and flame-sealed in glass ampoules. The set can be used for verification of instrument performance. Manufactured for Hidex by Eckert & Ziegler.

Cat. No. 462-307

Unquenched standard set for ^3H , ^{14}C and Blank for LCS calibration, 7 ml ampoules

*Contains toluene, UN 1294 for transportation

2.16 kBq C-14 +/-20% (130 000 dpm)

5 kBq H-3 +/-20% (300 000 dpm)

Total activity: 7.16 kBq

NIST traceable, provided with certificate.

Expiration date: 5 years from the date of preparation.

Compliant with Hidex Triathler LSC

Cat. No. 462-320

Unquenched standard set for ^3H , ^{14}C and Blank for LCS calibration, 20 ml ampoules, 10 ml volume

*Contains toluene, UN 1294 for transportation

1,1 kBq C-14 +/-20% (66 000 dpm)

2,9 kBq H-3 +/-20% (174 000 dpm)

Total activity: 4.0 kBq

NIST traceable, provided with certificate.

Expiration date: 5 years from the date of preparation.

Compliant with Hidex 300 SL and 600 SL



Quenched LSC Standard Set of ^3H and ^{14}C in DIN and toluene

Each set contains ten (10) pcs of 20 ml ampoules of either ^3H or ^{14}C standard samples with constant level of activity and variable level of quenching. The quench sets are available either in toluene or in di-isopropyl naphthalene (DIN) solvent. Intended use is creating either External standard - or TDCR- quench curves. Sample volume 15 ml. Standards are prepared gravimetrically and flame-sealed in glass ampoules. Manufactured for Hidex by Eckert & Ziegler.

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| ^3H activity /vial: | 4.17 kBq H-3 +/- 20% (250,000 DPM) |
| ^3H total activity /set: | 41.7 kBq |
| ^{14}C activity/vial: | 1.67 kBq C-14 +/- 20% (100,000 DPM) |
| ^{14}C total activity/set: | 16.7 kBq |

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| Cat. No. 462-7303 | ^3H DIN Quenched Standard Set, 10 x 20 ml vials NIST traceable, provided with certificate |
| Cat. No. 462-7314 | ^{14}C DIN Quenched Standard Set, 10 x 20 ml vials NIST traceable, provided with certificate |
| Cat. No. 462-8303 | ^3H Toluene Quenched Standard Set, 10 x 20 ml vials *Contains toluene, UN 1294 for transportation NIST traceable, provided with certificate |
| Cat. No. 462-8314 | ^{14}C Toluene Quenched Standard Set, 10 x 20 ml vials *Contains toluene, UN 1294 for transportation NIST traceable, provided with certificate |

