

SUBJECT

Standards Prep

JOB NO.

309.10011

PREPARED BY (SIGNATURE)

Gary Thomas

DATE

2 OCT 84

Native TCDD stock: Using Cahn microbalance in HML.
 NBS weight true value = 1.0000 STmg OBSERVED = 1.0006 mg
 Weight of TCDD = 500.7 μ g. Diluted to 10 ml w/ o-xylene
 Final conc = 50.07 μ g/ml

³⁷Cl-TCDD stock: KOK ISOTOPES 100 μ g in 0.25 ml anisole
 LOT NO. J-II-70. Diluted to 25 ml in dodecane. Final conc =
 4 μ g/ml.

¹³C-TCDD stock solution (prepared 4/10/84) 12 μ g/ml

Intermediate stock solution: 2 ml of 12 μ g/ml ¹³C-TCDD and 2.5 ml
 of 4 μ g/ml ³⁷Cl-TCDD diluted to 25 ml w/ dodecane. Final conc =
 0.96 μ g/ml ¹³C/.40 ³⁷Cl (For 1:1 dilutions w/ ¹²C) ~~4.5~~

Internal standard spiking solution: 2 ml of 12 μ g/ml ¹³C-TCDD and 2.5 ml
 of 4 μ g/ml ³⁷Cl-TCDD diluted to 100 ml w/ iso-octane. Final
 conc = 0.24 μ g/ml ¹³C/.10 ³⁷Cl

¹²C intermediate stock solutions: (all in dodecane)

1 ml of 50.07 μ g/ml diluted to 10 ml. Final conc = 5.007 μ g/ml

1 ml of 5.007 μ g/ml diluted to 10 ml. Final conc = 0.5007 μ g/ml

2 ml of 50.07 μ g/ml diluted to 5 ml. Final conc. = 20.03 μ g/ml

2 ml of 5.007 μ g/ml diluted to 5 ml. Final conc. = 2.003 μ g/ml

2 ml of 0.5007 μ g/ml diluted to 5 ml. Final conc. = 0.2003 μ g/ml

(cont. next page)

C11057

CC

READ AND UNDERSTOOD BY

Ry W. Ntbb

DATE

10 Jan 85

SUBJECT TO PROTECTIVE ORDER

Nº 2273265

from Previous Page

JOB NO.

309.10011

PREPARED BY (SIGNATURE)

By Thomas

DATE _____

17 OCT 84

Prepⁿ of analytical standards

1ml of 96 $\mu\text{g/l}$ ^{13}C / 40 ^{11}Cl and 1ml ~~50~~ 50.07 $\mu\text{g/l}$ ^{12}C = 25.04 $^{\circ}\text{C}$ / 15 $^{\circ}\text{C}$ / 20 ^{11}Cl

$$1 \mu\text{L } 5.007 = 2.504^{12}\text{C} / .48^{13}\text{C} / .10^{17}\text{O}$$
$$\ln 25007 = 0.2507^{\circ}\text{C} / .48^{\circ}\text{C} / .20^{\circ}\text{C}$$
$$1 \text{ ml } 20.03 = 10.02^\circ\text{C} / 48^\circ\text{C} / 20^\circ\text{C}$$
$$/m^2 \ 2.003 = 1.002^\circ C / 48^\circ C / 30'' Q$$
$$\mu_L 0.2003 \quad = 0.1002 \text{ } ^\circ\text{C} / 48 / 20$$

5ml of 0.96 ug/ml ^{13}C -TCDD and 1ml of 0.2003 ug/ml ^{12}C -TCDD
diluted to 10ml with toluene final conc = 0.0100 ^{12}C -TCDD/20.

Prepared samples to check results - final vol = 50 μ l

simple if

101601 0.0130 ¹²C/.48 ¹³C/.20 ³⁷Cl

2 0,002

3 0.2504

4 1.002

5 2.504

12.02

7 25.04

5 100 μ l 0.3% AgNO_3 $^{17}\text{C}/10^{17}\text{C}$

$9 \downarrow$ $10 \downarrow$ $11 \downarrow$ $12 \downarrow$ $13 \downarrow$ $14 \downarrow$ $15 \downarrow$ $16 \downarrow$ $17 \downarrow$ $18 \downarrow$ $19 \downarrow$ $20 \downarrow$ $21 \downarrow$ $22 \downarrow$ $23 \downarrow$ $24 \downarrow$ $25 \downarrow$ $26 \downarrow$ $27 \downarrow$ $28 \downarrow$ $29 \downarrow$ $30 \downarrow$ $31 \downarrow$ $32 \downarrow$ $33 \downarrow$ $34 \downarrow$ $35 \downarrow$ $36 \downarrow$ $37 \downarrow$ $38 \downarrow$ $39 \downarrow$ $40 \downarrow$ $41 \downarrow$ $42 \downarrow$ $43 \downarrow$ $44 \downarrow$ $45 \downarrow$ $46 \downarrow$ $47 \downarrow$ $48 \downarrow$ $49 \downarrow$ $50 \downarrow$ $51 \downarrow$ $52 \downarrow$ $53 \downarrow$ $54 \downarrow$ $55 \downarrow$ $56 \downarrow$ $57 \downarrow$ $58 \downarrow$ $59 \downarrow$ $60 \downarrow$ $61 \downarrow$ $62 \downarrow$ $63 \downarrow$ $64 \downarrow$ $65 \downarrow$ $66 \downarrow$ $67 \downarrow$ $68 \downarrow$ $69 \downarrow$ $70 \downarrow$ $71 \downarrow$ $72 \downarrow$ $73 \downarrow$ $74 \downarrow$ $75 \downarrow$ $76 \downarrow$ $77 \downarrow$ $78 \downarrow$ $79 \downarrow$ $80 \downarrow$ $81 \downarrow$ $82 \downarrow$ $83 \downarrow$ $84 \downarrow$ $85 \downarrow$ $86 \downarrow$ $87 \downarrow$ $88 \downarrow$ $89 \downarrow$ $90 \downarrow$ $91 \downarrow$ $92 \downarrow$ $93 \downarrow$ $94 \downarrow$ $95 \downarrow$ $96 \downarrow$ $97 \downarrow$ $98 \downarrow$ $99 \downarrow$ $100 \downarrow$

SUBJECT TO PROTECTIVE ORDER

C11058

00155

READ AND UNDERSTOOD BY

DATE _____