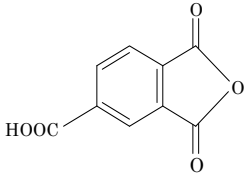


1,2,4-Benzenetricarboxylic acid 1,2-anhydride  
(1,2,4-ベンゼントリカルボン酸1,2-無水物)

Experimental Data-1

(B9601-1/2)

Chemical Name	; 1,2,4-Benzenetricarboxylic acid 1,2-anhydride	
Synonym	; Benzene-1,2,4-tricarboxylic acid 1,2-anhydride Trimellitic anhydride 無水トリメイト酸	
Molecular Weight	; 192.13	
Melting Point	; 165-169°C [Aldrich]	
Boiling Point	; 390°C, 240-245°C (14mmHg)[CHCD]	
Flashing Point	; -	
Molecular Formula	; C <sub>9</sub> H <sub>4</sub> O <sub>5</sub>	
Chemical Structure		
CAS No.	; 552-30-7	
MITI No.	; (3)-1362	
ML No.	; -	
Specified Chemical Substances	; -	
Source of Substance	Tokyo Kasei Kogyo Co., Ltd.	
Lot No.	; FHC01	
Purity	; 99.30%	
Vehicle	; Dehydrated DMSO	

Conc. μ g/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 <sub>uvrA</sub>		TA98		TA1537	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	( 136 )	( 144 )	( 6 )	( 6 )	( 19 )	( 26 )	( 14 )	( 25 )	( 7 )	( 8 )
156	138 141 ( 140 )	127 151 ( 139 )	7 13 ( 10 )	6 7 ( 7 )	17 15 ( 16 )	22 21 ( 22 )	17 16 ( 17 )	23 28 ( 26 )	8 3 ( 6 )	7 6 ( 7 )
313	131 148 ( 140 )	156 176 ( 166 )	7 7 ( 7 )	2 6 ( 4 )	16 26 ( 21 )	23 16 ( 20 )	16 17 ( 17 )	29 26 ( 28 )	7 7 ( 7 )	14 13 ( 14 )
625	131 143 ( 137 )	164 156 ( 160 )	9 7 ( 8 )	6 8 ( 7 )	9 17 ( 13 )	17 16 ( 17 )	11 15 ( 13 )	26 33 ( 30 )	6 3 ( 5 )	11 10 ( 11 )
1250	122 144 ( 133 )	167 162 ( 165 )	5 5 ( 5 )	6 8 ( 7 )	25 17 ( 21 )	22 21 ( 22 )	16 26 ( 21 )	28 29 ( 29 )	7 8 ( 8 )	9 13 ( 11 )
2500	133 126 ( 130 )	167 178 ( 173 )	7 6 ( 7 )	6 6 ( 6 )	20 16 ( 18 )	23 24 ( 24 )	21 13 ( 17 )	21 31 ( 26 )	3 9 ( 6 )	8 7 ( 8 )
5000 †	104 * 104 * ( 104 * )	116 * 127 * ( 122 * )	5 * 6 * ( 6 * )	6 * 8 * ( 7 * )	14 * 7 * ( 11 * )	20 * 23 * ( 22 * )	9 * 8 * ( 9 * )	7 * 26 * ( 17 * )	9 * 3 * ( 6 * )	4 * 5 * ( 5 * )
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 ( 775 )	2-AA ( 1235 )	NaN <sub>3</sub> ( 262 )	2-AA ( 222 )	AF-2 ( 329 )	2-AA ( 852 )	AF-2 ( 306 )	2-AA ( 407 )	9-AA ( 498 )	2-AA ( 171 )

\* Growth inhibition was observed.

† Test chemical was precipitated with S9mix.

Mutagenicity in Bacterial Test ; Negative

IARC Evaluation ; not yet cited

Experimental Data-2

Conc. μ g/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2 <sup>uvrA</sup> /pKM101	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+
	( 278 )	( 328 )	( 292 )	( 377 )	( 44 )	( 67 )
1 .22	287	318	297	349	68	70
	284	330	297	391	48	69
	( 286 )	( 324 )	( 297 )	( 370 )	( 58 )	( 70 )
4 .88	247	355	331	370	52	70
	273	344	292	382	60	76
	( 260 )	( 350 )	( 312 )	( 376 )	( 56 )	( 73 )
19 .5	272	326	329	428	43	81
	271	318	326	396	53	70
	( 272 )	( 322 )	( 328 )	( 412 )	( 48 )	( 76 )
78 .1	269	340	328	358	51	57
	276	347	304	408	48	61
	( 273 )	( 344 )	( 316 )	( 383 )	( 50 )	( 59 )
313	285	355	320	402	56	72
	287	350	282	388	46	86
	( 286 )	( 353 )	( 301 )	( 395 )	( 51 )	( 79 )
1250	243	329	372	428	43	70
	216	331	239	468	43	72
	( 230 )	( 330 )	( 256 )	( 448 )	( 43 )	( 71 )
5000 †	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *
	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM ( 748 )	2-AA ( 1344 )	PA ( 1829 )	2-AA ( 1395 )	AF-2 ( 1401 )	2-AA ( 1005 )

Experimental Data-3

(B9601-2/2)

Conc. μ g/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2 <sup>uvrA</sup> /pKM101	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+
	( 269 )	( 310 )	( 275 )	( 382 )	( 36 )	( 71 )
156	266	356	287	414	41	55
	265	305	309	362	52	71
	( 266 )	( 331 )	( 298 )	( 388 )	( 47 )	( 63 )
313	272	293	310	406	39	76
	252	322	313	378	43	69
	( 262 )	( 308 )	( 312 )	( 392 )	( 41 )	( 73 )
625	266	313	319	402	43	79
	256	312	274	395	38	68
	( 261 )	( 313 )	( 297 )	( 399 )	( 41 )	( 74 )
1250	292	355	265	417	56	63
	205	346	263	383	48	62
	( 249 )	( 351 )	( 264 )	( 400 )	( 52 )	( 63 )
2500	248	330	349	443	43	62
	228	343	393	370	44	60
	( 238 )	( 337 )	( 371 )	( 407 )	( 44 )	( 61 )
5000 †	0 *	0 *	0 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	0 *	0 *
	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)	( 0 *)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM ( 633 )	2-AA ( 1312 )	PA ( 1700 )	2-AA ( 1401 )	AF-2 ( 1715 )	2-AA ( 822 )