

2-Hydroxyethyl acrylate (アクリル酸=2-ヒドロキシエチル)

Experimental Data (Short treatments)

Chemical Name ; <u>2-Hydroxyethyl acrylate</u>	S9 mix	Concentration (mg/ml)	Cell with Structural Chromosome Aberration (%)							Gap (%)	Cell Growth Rate (%)	Cell with Numerical Chromosome Aberration(%)					
			No. of Metaphase	Chromatid		Chromosome		Others	Total			No. of Metaphase	Poly-ploid	Others	Total		
				ctb	cte	csb	cse										
Synonym ; <u>Acrylic acid 2-hydroxyethyl ester</u> <u>2-Hydroxyethyl 2-propenoate</u>	6-18	[H ₂ O] (10%)	200	0	0	0	0	0	0	0	100	200	0	0	0		
		0.0050	200	0.5	0	0	0	0	0	0.5	0.5	94	200	0	0	0	
Molecular Weight ; 116.12		0.010	200	1.5	1	0	0	0	0	2	0.5	86	200	0	0	0	
Melting Point ;		0.015	200	3.5	3	0	0	0	0	6.5	2.5	82	200	4	0	4	
Boiling Point ; 191°C[CHCD]		0.020	200	9	7	0	0	0	0	15.5	2	78	200	9	0	9	
Flashing Point ; 68°C[CHCD]		0.025	200	23	19	0.5	0	0	0	34	5	74	200	4	0	4	
Molecular Formula ; C ₅ H ₈ O ₃		0.030	200	47.5	52	0	0	0	0	65.5	2	61	200	0.5	0	0.5	
Chemical Structure ;		[MMC] (0.00012)	200	15.5	36.5	0	0	0	0	46	2	—	200	0.5	0	0.5	
CH ₂ =CHCOOCH ₂ CH ₂ OH		[H ₂ O] (10%)	200	0	0	0	0	0	0	0	0.5	100	200	0	0	0	
CAS No. ; 818-61-1		6-18	+	0.025	200	1	0.5	0	0	0	1	0	86	200	0.5	0	0.5
;	0.050			200	0	0	0	0	0	0	0	0	94	200	0.5	0	0.5
MHLW No. ; -	0.10			200	1.5	1	0	0	0	0	2.5	0.5	90	200	4	0	4
Specified Chemical Substances ; -	0.15			200	10.5	16	0	0	0	0	22	2.5	92	200	8.5	0	8.5
Source of Substance: Wako Pure Chemical Industries, Ltd.	0.20			200	12	16	0	0	0	0	23.5	3.5	78	200	4	0	4
Lot No. ; PAK5982	0.25			35	31.4	28.6	0	0	0	0	48.6	2.9	68	35	0	0	0
Purity ; 96.2%	[B[a]P] (0.01)			200	11	53.5	0	0	0	0	56.5	1.5	—	200	0	0	0
Vehicle ; Ultrapure H ₂ O																	
Judgement for Chromosomal Aberration in CHL/IU ; Positive																	

IARC Evaluation ; not yet cited

※ Test conditions: S9mix ; 5%, Treatment time ; 6h, Recovery time ; 18h

Experimental Data without Metabolic Activation (Continuous treatments)

Treatment Time (h)	Concentration (mg/ml)	Cell with Structural Chromosome Aberration (%)							Gap (%)	Cell Growth Rate (%)	Cell with Numerical Chromosome Aberration (%)			
		No. of Metaphase	Chromatid		Chromosome		Others	Total			No. of Metaphase	Polyploid	Others	Total
			ctb	cte	csb	cse								
24-0	[H ₂ O] (10%)	200	0	0	0	0	0	0	0	100	200	1	0	1
	0.0040	200	1	0	0	0	0	1	0.5	82	200	0	0	0
	0.0060	200	2.5	0.5	0	0	0	3	0	70	200	0	0	0
	0.0080	200	11	2.5	0	0	0	13.5	3	71	200	0	0	0
	0.010	200	56	34.5	0	0	0	66.5	2	64	200	0	0	0
	0.012	73	87.7	24.7	0	0	0	97.3	0	59	73	0	0	0
	0.014	TOX								51	TOX			
	[MMC] (0.00004)	200	11.5	37.5	0	0	0	46	0	—	200	0.5	0	0.5
48-0	[H ₂ O] (10%)	200	0	0	0	0	0	0	0	100	200	0	0	0
	0.0040	200	0	0	0	0	0	0	0.5	81	200	0	0	0
	0.0060	200	0.5	0	0	0	0	0.5	0	60	200	1.5	0	1.5
	0.0080	200	5.5	3.5	0	0	0	7.5	0	44	200	0.5	0	0.5
	0.010	200	35	28.5	0.5	0	0	50	4	45	200	0	0	0
	0.012	200	53.5	55	0.5	0	0	75	3.5	38	200	5.5	0	5.5
	0.014	TOX								17	TOX			
	[MMC] (0.00004)	200	26.5	66	0	0	0	72.5	4	—	200	0.5	0	0.5

※ Test conditions: Treatment time ; 24h or 48h, Recovery time ; 0h