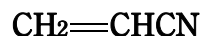


[アクリロニトリル]

Chemical Name; Acrylonitrile  
 Synonym ; 2-Propenenitrile  
 Vinyl cyanide  
 Cyanoethylene  
 2-プロペンニトリル  
 シアン化ビニール  
 シアノエチレン

Molecular Weight ; 53.06  
 Melting Point ; - 83 °C [Aldrich]  
 - 83.55 °C [Merck]  
 Boiling Point ; 78 °C [CHCD]  
 77 °C [Aldrich]  
 77.3 °C, 8.7 °C (50mmHg) [Merck]  
 Flashing Point ; - 5 °C [CHCD]  
 0 °C [Aldrich], (o. c.) [Merck]  
 Molecular Formula; C<sub>3</sub>H<sub>3</sub>N

## Chemical Structure



CAS No. ; 107-13-1  
 MITI No. ; (2)-1513  
 ML No. ; -  
 Specified Chemical Substances; -

Source of Substance; Wako Junyaku Kogyo Co., Ltd.  
 Lot No. ; WDP4167  
 Purity ; 100.0 %

Vehicle ; Saline

## Experimental Data without Metabolic Activation

Substance	Treatment		No. of Metaphase	Polyploid (%)	Judge-ment	Cell with Structural Chromosome Aberration (%)								
	Time (h)	Concentration (mg/ml)				Chromatid		Chromosome		Total		Judge-ment		
						CTB	CTE	CSB	CSE	-G	+G			
Saline	24		200	1.5	-	0.0	0.0	0.5	0.0	0.0	0.5	0.5	-	
	48		200	2.0	-	0.0	2.0	0.0	0.0	0.0	2.0	2.0	-	
Test Chemical	24	0.010	200	0.0	-	0.0	0.5	1.0	0.0	0.0	1.5	1.5	-	
		0.015	200	0.0	-	0.0	1.5	0.0	0.0	0.0	1.5	1.5	-	
		0.020	200	0.0	-	0.5	6.5	2.5	0.0	0.0	8.0	8.0	±	
		0.025	191	0.0	-	2.1	10.5	5.8	0.0	0.0	15.2	15.7	+	
		0.030	140	0.0	-	4.3	32.1	30.7	0.0	0.0	44.3	45.0	+	
		48	0.010	200	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
		0.015	200	6.5	±	1.0	3.5	4.0	0.0	0.0	6.5	7.0	±	
0.020	200	7.5	±	5.5	13.0	6.5	0.0	0.0	17.5	18.5	+			
0.025	200	4.5	-	10.0	31.5	20.5	0.0	0.0	38.5	38.5	+			
0.030						No observation for metaphase								
Positive Control	24	0.00004	200	0.5	-	0.0	6.0	31.0	0.0	0.0	33.5	33.5	+	
[MMC]	48	0.00004	200	1.5	-	2.0	5.0	35.0	0.0	0.5	38.0	38.0	+	

※ There was no observation for metaphase with both treatment of 24Hr and 48Hr at 0.035mg/ml.

※ The culture bottle was sealed and cultured standing after adding the test substances.

Judgement for

Chromosomal Aberration in CHL ; **Positive**

IARC Evaluation

; Group 1A

Experimental Data with Metabolic Activation

Treatment			No. of Metaphase	Polyploid (%)	Judge- ment	Cell with Structural Chromosome Aberration (%)							Judge- ment
Substance	S9 mix	Concent- ration (mg/ml)				Chromatid		Chromosome		Total			
						Gap	CTB	CTE	CSB	CSE	-G	+G	
Saline	-		200	3.5	-	0.5	0.0	0.5	0.0	0.0	0.5	1.0	-
	+		200	2.5	-	0.0	0.0	0.5	0.0	0.5	1.0	1.0	-
Test Chemical	-	0.01	200	0.0	-	0.5	0.5	0.5	0.0	0.0	1.0	1.5	-
		0.02	200	2.0	-	0.0	0.5	0.5	0.0	0.0	1.0	1.0	-
		0.04	200	4.5	-	0.0	2.5	2.5	0.0	0.5	5.0	5.0	±
		0.06	200	1.5	-	0.5	6.0	14.0	0.0	0.0	16.5	16.5	+
		0.08	200	0.0	-	5.0	17.0	32.0	0.0	0.0	37.5	38.5	+
	+	0.01	200	1.0	-	0.0	0.0	1.0	0.0	0.0	1.0	1.0	-
		0.02	200	0.5	-	0.0	0.0	3.5	0.0	0.0	3.5	3.5	-
		0.04	200	2.0	-	2.5	10.0	36.5	0.0	0.0	39.5	41.0	+
		0.06	200	0.0	-	4.5	28.0	77.0	0.0	0.5	82.5	83.0	+
		0.08	200	0.0	-	6.5	34.5	81.5	0.0	0.0	86.0	86.0	+
Positive Control [B(a)P]	-	0.01	200	3.0	-	0.0	0.5	0.0	0.0	0.0	0.5	0.5	-
	+	0.01	200	4.0	-	1.0	5.0	28.0	0.0	0.0	30.0	30.5	+

※ There was no observation for metaphase with both treatment of -S9 and +S9 at 0.1mg/ml.

※ The culture bottle was sealed and cultured standing after adding the test substances.