

Chemical Name	: <u>Methallyl chloride</u>
Synonym	: <u>3-Chloro-2-methyl-1-propene</u> <u>3-Chloro-2-methylpropene</u> <u>3-クロロ-2-メチル-1-プロペン</u>
Molecular Weight	: 90.55
Melting Point	: -
Boiling Point	: 71-72°C [Aldrich]
Flashing Point	: -19°C [CHCD]
Molecular Formula	: C ₄ H ₇ Cl
Chemical Structure	$\begin{array}{c} \text{CH}_3 \\ \\ \text{ClCH}_2\text{C}=\text{CH}_2 \end{array}$
CAS No.	: 563-47-3
MITI No.	: (2)-117, (2)-2367
ML No.	: -
Specified Chemical Substances	: -
Source of Substance	: Wako Junyaku Kogyo Co., Ltd.
Lot No.	: LHK4739
Purity	: 95.0%
Vehicle	: Dehydrated DMSO

Substance	Treatment		No. of Metaphase	Polyploid		Cell with Structural Chromosome Aberration (%)								
	Time (h)	Concentration (mg/ml)		No. of Metaphase	Judgement	Gap g	Chromatid		Chromosome		Others	Total		Judgement
							ctb	cte	csb	cse		-g	+g	
DMSO	24	1.0%	200	3	-	0	0	0	0	0.5	0	0.5	0.5	-
	48	1.0%	200	1	-	0	0	0	0	0	0	0	0	-
Test Chemical	24	0.04	200	2	-	0	1.5	0.5	0	0	0	2	2	-
		0.08	200	2.5	-	0	10.5	13	0	0.5	0	20.5	20.5	+
		0.12	138	0	-	0.7	37	42	0	0	0	54.3	55.1	+
		0.16	No obserbation for metaphase											
	48	0.02	200	0.5	-	0	0	0.5	0	0.5	0	0.5	0.5	-
		0.04	200	1.5	-	0.5	2	1	0	0.5	0	2	2.5	-
		0.08	115	5.2	±	0	17.4	17.4	0	0	0	32.2	32.2	+
		0.12	No obserbation for metaphase											
Positive Control [MMC]	24	0.00004	200	0	-	0	15.5	33.5	0	0	0	45.5	45.5	+
	48	0.00004	200	0.5	-	0.5	12.5	40.5	0	0	0	46.5	47	+

※ The culture bottle was sealed and cultured rotating after adding the test substance.

Judgement for
Chromosomal Aberration in CHL : Positive

IARC Evaluation : Group 3

Experimental Data with Metabolic Activation

Treatment			No. of Metaphase	Polyploid		Cell with Structural Chromosome Aberration (%)								
Substance	S9 mix	Concent- ration (mg/ml)		%	Judge- ment	Gap g	Chromatid		Chromosome		Others	Total		Judge- ment
							ctb	cte	csb	cse		-g	+g	
DMSO	-	1.0%	200	0	-	0	0	0	0	0	0	0	0	-
	+	1.0%	200	1	-	0	0	0	0	0	0	0	0	-
Test Chemical	-	0.04	200	1.5	-	0.5	0	0	0	0	0	0	0.5	-
		0.08	200	1	-	0	0	1	0	0	0	1	1	-
		0.12	200	2.5	-	0	0.5	1.5	0	0	0	2	2	-
		0.16	200	6.5	±	0	1	3	0	0	0	4	4	-
		0.2	No obserbation for metaphase											
	+	0.02	200	0.5	-	0.5	0	1	0	0	0	1	1.5	-
		0.04	200	0	-	0.5	0.5	1	0	0	0	1	1.5	-
		0.06	200	1.5	-	0	7.5	17	0	0	0	21	21	+
		0.08	143	0.7	-	2.1	46.2	60.8	0	0	0.7	67.1	67.8	+
		0.1	No obserbation for metaphase											
Positive Control [B[a]P]	-	0.015	200	0	-	0	0	0	0	0	0	0	-	
	+	0.015	200	0	-	0	13	43.5	0	0	0	45	45	+

※ The culture bottle was sealed and cultured rotating after adding the test substance.
 Test conditions: Treatment time ; 6h, Rcovery time ; 18h