

Methylacetylene (メチルアセチレン)

| | |
|----------------------|--------------------------------------|
| Chemical Name: | Methylacetylene |
| Synonym | 1-Propyne |
| Molecular weight: | 40.07 |
| Melting point: | -102.7°C |
| Boiling point: | -23.22°C |
| Chemical Structure | |
| | $\text{CH}_3\text{C}\equiv\text{CH}$ |
| CAS No : | 74-99-7 |
| MITI No : | (2)-15 |
| Source of Substance: | Tokyo Kasei Kogyo Co., Ltd. |
| Lot. No. : | FAY02 |
| Purity: | % |
| Vehicle: | Air |

Judgement for Chromosomal Aberration in CHL: Positive

IARC Evaluation : not yet cited

Experimental Data

| | Treated Time (Hr) | Concentration (%) | No. of Meta-phase | Poly-ploid (%) | Judge | Cell with Structural Chromosome Aberration (%) | | | | | | Judge | |
|------------------------------------|-------------------|-------------------|-------------------|----------------|-------|--|-----|------|-----|-----|-------|-------|----|
| | | | | | | Gap | CTB | CTE | CSB | CSE | Total | | |
| | | | | | | | | | | | -G | | +G |
| Air | 24 | | 200 | 1.0 | — | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.5 | — |
| | 48 | | 200 | 0 | — | 1.0 | 0 | 1.0 | 0 | 0 | 1.0 | 2.0 | — |
| Test Chemical | | | | | | | | | | | | | |
| | 24 | 40 | 200 | 0 | — | 1.0 | 1.0 | 0.5 | 0 | 0 | 1.5 | 2.5 | — |
| | | 60 | 200 | 0 | — | 1.5 | 1.0 | 2.0 | 0 | 0 | 3.0 | 4.5 | — |
| | | 80 | 200 | 0 | — | 2.5 | 3.0 | 4.5 | 0 | 0 | 7.0 | 9.0 | ± |
| | | 100 | 200 | 0 | — | 2.5 | 7.5 | 5.0 | 0 | 0 | 11.5 | 13.5 | + |
| | 48 | 4 | 200 | 0 | — | 0.5 | 1.0 | 1.0 | 0 | 0 | 1.5 | 2.0 | — |
| | | 8 | 200 | 0 | — | 2.0 | 1.5 | 4.5 | 0 | 0 | 6.0 | 8.0 | ± |
| | | 12 | 200 | 0 | — | 3.5 | 2.5 | 7.0 | 0 | 0 | 9.5 | 12.0 | + |
| | | 16 | 200 | 1.0 | — | 2.0 | 6.0 | 16.0 | 0 | 0 | 22.0 | 23.5 | + |
| Positive Control (Methyl chloride) | | | | | | | | | | | | | |
| | 24 | 2.0 | 200 | 0.5 | — | 5.0 | 7.5 | 15.5 | 0 | 0 | 21.5 | 24.5 | + |
| | 48 | 1.5 | 200 | 0.5 | — | 6.5 | 6.5 | 14.0 | 0 | 0 | 18.5 | 22.5 | + |

Experimental Data

| S 9 with or without | Concent- ration (%) | No. of Meta- phase | Poly- ploid (%) | Judge | Cell with Structural Chromosome Aberration (%) | | | | | | | |
|---------------------------|---------------------------|--------------------------|-----------------------|-------|---|-----|------|-----|-----|-------|------|-------|
| | | | | | Gap | CTB | CTE | CSB | CSE | Total | | Judge |
| | | | | | | | | | | -G | +G | |
| Air | - | 200 | 0.5 | - | 0 | 0 | 0.5 | 0 | 0 | 0.5 | 0.5 | - |
| | + | 200 | 0 | - | 0 | 0 | 0.5 | 0 | 0 | 0.5 | 0.5 | - |
| Test Chemical | | | | | | | | | | | | |
| - | 40 | 200 | 2.5 | - | 0 | 0.5 | 0.5 | 0 | 0 | 1.0 | 1.0 | - |
| | 60 | 200 | 3.5 | - | 0 | 0 | 1.0 | 0 | 0 | 1.0 | 1.0 | - |
| | 80 | 200 | 3.5 | - | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.5 | - |
| | 100 | 200 | 0.5 | - | 0.5 | 0 | 0.5 | 0 | 0 | 0.5 | 1.0 | - |
| + | 40 | 200 | 2.0 | - | 0 | 0 | 1.0 | 0 | 0 | 1.0 | 1.0 | - |
| | 60 | 200 | 3.0 | - | 0 | 0 | 0.5 | 0 | 0 | 0.5 | 0.5 | - |
| | 80 | 200 | 3.0 | - | 0.5 | 0 | 1.0 | 0 | 0 | 1.0 | 1.5 | - |
| | 100 | 200 | 0.5 | - | 0.5 | 0.5 | 6.0 | 0 | 0 | 6.5 | 6.5 | ± |
| Positive Control | | | | | | | | | | | | |
| (Methyl chloride) | | | | | | | | | | | | |
| - | 4.0 | 200 | 1.0 | - | 3.5 | 3.5 | 17.5 | 0 | 1.0 | 20.5 | 23.0 | + |
| (Vinyl chloride) | | | | | | | | | | | | |
| + | 2.5 | 200 | 1.0 | - | 2.5 | 4.5 | 15.5 | 0 | 1.0 | 19.5 | 20.5 | + |