Chemical within inline math: $M(\mathrm{CO_2})$ or $M(\mathrm{CO_2})$. This works fine.
Chemical in display math:

$$M(\quad \mathrm{CO_2} \quad)$$

gives some strange spacing and seems to modify the font outside `\chemical`.
Chemical in display math:

$$M(\quad \mathrm{CO_2} \quad)$$

corrects the font problem but still gives some strange spacing.