

LMHC Information Sheet # 15

Tanzanite

- **Definition**
- **Report wording**

Members of the Laboratory Manual Harmonisation Committee (LMHC) have standardised the nomenclature that they use to describe tanzanite.

Definition

Tanzanite is the name for the vanadium-bearing blue to purple colour variety of the mineral zoisite (Ca-Al-silicate). Discovered in 1967 at Merelani in northern Tanzania, this deposit is until today the main and only source of gem-quality tanzanite until today.

Tanzanite is strongly pleochroic, with a blue, a purple, and occasionally a yellowish-brown pleochroic colour when observed with a dichroscope. The interplay of these three pleochroic colours may shift the overall colour of tanzanite to a greyish blue hue. By a heat treatment, the yellowish-brown colour component of tanzanite can be easily removed, thus shifting the colour to a distinctly more attractive hue, dominated only by the pleochroic colours blue and purple. Consequently, many tanzanites of gem-quality are heat treated.

Zoisite is found in many further colours (colourless-white, yellow, green, pink). These zoisite colour varieties should not be called tanzanites with a colour prefix.

Furthermore, it is possible that zoisites show distinct colour zoning, even partly with vanadium-bearing bluish zones. Only when the blue/purple colour clearly dominates the visual appearance of the stone can it be considered a tanzanite. In case other colours are clearly visible or even dominate (such as pink, yellowish green, green, or colourless), the stone can no longer qualify as tanzanite.

Report wording

Tanzanite shall be described as,

Identification:

Species: **(natural)¹ zoisite**

Variety: **tanzanite**

Note: Tanzanite is commonly heated. However, in some cases this treatment is currently not determinable, see also information sheet#8.

¹ Wording and text in parentheses is optional.