

TLVs® *JE*
**Threshold Limit Values
for
Chemical Substances
and
Physical Agents
in the
Workroom Environment
with
Intended Changes
for
1976**



CBY 3102501

C 000160

LAM022070

MINERAL DUSTS

Substance
SILICA, SiO₂
Crystalline
Quartz

TLV in mppcf**

300**

% quartz + 10

TLV for respirable dust in
mg/m³:

10 mg/m³**

% Respirable quartz + 2

TLV for "total dust," respirable
and nonrespirable:

30 mg/m³

% quartz + 3

Cristobalite Use one-half the value calculated
from the count or mass formulae
for quartz.

Tridymite Use one-half the value calculated
from formulae for quartz.

Silica, fused Use quartz formulae.

Tripoli Use respirable** mass quartz for-
mula

Amorphous 20 mppcf

SILICATES (< 1% quartz)

Asbestos, all forms† 5 fibers/cc >

5µm in

length** A1a

15 mppcf

Graphite (natural)

20 mppcf

Mica

10 mg/m³

Mineral wool fiber

30 mppcf

Perlite

30 mppcf

Portland Cement

20 mppcf

Soapstone

20 mppcf

Talc (nonasbestiform)

Talc (fibrous) use Asbestos limit.

Tremolite, see Asbestos.

†A more stringent TLV for crocidolite may be required

†, n) See p. 33

**See Notice of Intended Changes

COAL DUST

2 mg/m³ (respirable dust fraction < 5% quartz).

If > 5% quartz, use respirable mass formula.

NUISANCE PARTICULATES

(see Appendix E)

30 mppcf or 10 mg/m³**

of total dust < 1% quartz, or, 5 mg/m³ respirable dust.

Conversion factors:

mppcf × 35.3 = Million particles per cubic meter
= particles per c.c.

- Millions of particles per cubic foot of air, based on impinger samples counted by light-field technics.
- The percentage of quartz in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.
- Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics:

Aerodynamic Diameter (µm) (unit density sphere)	% passing selector
≥ 2	90
2.5	75
3.5	50
5.0	25
10	0

- containing <1% quartz; if quartz content > 1%, use formulae for quartz.
- Lint-free dust as measured by the vertical-elutriator, cotton-dust sampler described in the Transactions of the National Conference on Cotton Dust, Jr. R. Lynch, pg. 33, May 2, 1970.
- As determined by the membrane filter method at 400-450X magnification (4 mm objective) phase contrast illumination.
- Based on "high volume" sampling.
- "Respirable" dust as defined by the British Medical