

## US. ACGIH Threshold Limit Values

Components	Type	Value
4-METHYLPENTAN-2-ONE (CAS 108-10-1)	STEL	75 ppm
	TWA	20 ppm
BUTANONE (CAS 78-93-3)	STEL	300 ppm
	TWA	200 ppm
CYCLOHEXANE (CAS 110-82-7)	TWA	100 ppm
ETHANOL (CAS 64-17-5)	STEL	1000 ppm
TOLUENE (CAS 108-88-3)	TWA	20 ppm

## US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
4-METHYLPENTAN-2-ONE (CAS 108-10-1)	STEL	300 mg/m3
		75 ppm
	TWA	205 mg/m3
		50 ppm
BUTANONE (CAS 78-93-3)	STEL	885 mg/m3
		300 ppm
	TWA	590 mg/m3
		200 ppm
CYCLOHEXANE (CAS 110-82-7)	TWA	1050 mg/m3
		300 ppm
ETHANOL (CAS 64-17-5)	TWA	1900 mg/m3
		1000 ppm
TOLUENE (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm

## Biological limit values

### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
4-METHYLPENTAN-2-ONE (CAS 108-10-1)	1 mg/l	Methyl isobutyl ketone	Urine	*
BUTANONE (CAS 78-93-3)	2 mg/l	MEK	Urine	*
TOLUENE (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

\* - For sampling details, please see the source document.

## Exposure guidelines

### US - California OELs: Skin designation

TOLUENE (CAS 108-88-3) Can be absorbed through the skin.

### US - Minnesota Haz Subs: Skin designation applies

TOLUENE (CAS 108-88-3) Skin designation applies.

## Appropriate engineering controls

Provide eyewash station and safety shower. Use adequate ventilation to control airborne concentrations below the exposure limits/guidelines. If user operations generate a vapor, dust and/or mist, use process enclosure, appropriate local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits/guidelines.

## Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).