

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
1,4-DIOXANE (CAS 123-91-1)	TWA	20 ppm
ETHYLENE OXIDE (CAS 75-21-8)	TWA	1 ppm
ISOBUTANE (CAS 75-28-5)	STEL	1000 ppm
POTASSIUM HYDROXIDE (CAS 1310-58-3)	Ceiling	2 mg/m3

NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
1,4-DIOXANE (CAS 123-91-1)	IDLH	2 %
		500 ppm
ETHYLENE OXIDE (CAS 75-21-8)	IDLH	3 %
		800 ppm
PROPANE (CAS 74-98-6)	IDLH	2.1 %
		2100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value
1,4-DIOXANE (CAS 123-91-1)	Ceiling	3.6 mg/m3
		1 ppm
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	100 mg/m3
ETHYLENE OXIDE (CAS 75-21-8)	Ceiling	9 mg/m3
		5 ppm
	TWA	0.18 mg/m3
		0.1 ppm
ISOBUTANE (CAS 75-28-5)	TWA	1900 mg/m3
		800 ppm
POTASSIUM HYDROXIDE (CAS 1310-58-3)	Ceiling	2 mg/m3
PROPANE (CAS 74-98-6)	TWA	1800 mg/m3
		1000 ppm

Biological limit values**ACGIH Biological Exposure Indices (BEI)**

Components	Value	Determinant	Specimen	Sampling Time
ETHYLENE OXIDE (CAS 75-21-8)	5 µg/g	S-(2-hydroxyethyl) mercapturic acid (HEMA)	Creatinine in urine	*
	5000 pmol/g	N-(2-hydroxyethyl)-valine (HEV) hemoglobin adducts	Hemoglobin adducts	*

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

Exposure guidelines**US - California OELs: Skin designation**

1,4-DIOXANE (CAS 123-91-1)

Can be absorbed through the skin.