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**Ozone**

**CAS**

10028-15-6

**O<sub>3</sub>**

**RTECS**

[RS8225000](#)

**Synonyms & Trade Names**

**DOT ID & Guide**

Triatomic oxygen

NIOSH REL: C 0.1 ppm (0.2 mg/m<sup>3</sup>)

**Exposure  
Limits**

OSHA PEL†: TWA 0.1 ppm (0.2 mg/m<sup>3</sup>)

**IDLH**

**Conversion**

5 ppm See: [10028156](#)

1 ppm = 1.96 mg/m<sup>3</sup>

**Physical Description**

Colorless to blue gas with a very pungent odor.

MW: 48.0

BP: -169°F

FRZ: -315°F

Sol(32°F): 0.001%

VP: >1 atm

IP: 12.52 eV

RGasD: 1.66

Fl.P: NA

UEL: NA

LEL: NA

Nonflammable Gas, but a powerful oxidizer.

**Incompatibilities & Reactivities**

All oxidizable materials (both organic & inorganic)

**Personal Protection & Sanitation**

**First Aid**

Skin: No recommendation

Eyes: No recommendation

Wash skin: No recommendation

Remove: No recommendation

Change: No recommendation

Eye: Medical attention

Breathing: Fresh air; 100% O<sub>2</sub>

## ***Respirator Recommendations***

NIOSH/OSHA

### **Up to 1 ppm:**

(APF = 10) Any chemical cartridge respirator with cartridge(s) providing protection against the compound of concern<sup>6</sup>

(APF = 10) Any supplied-air respirator

### **Up to 2.5 ppm:**

(APF = 25) Any supplied-air respirator operated in a continuous-flow mode

(APF = 25) Any powered, air-purifying respirator with cartridge(s) providing protection against the compound of concern<sup>6</sup>

### **Up to 5 ppm:**

(APF = 50) Any chemical cartridge respirator with a full facepiece and cartridge(s) providing protection against the compound of concern<sup>6</sup>

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted canister providing protection against the compound of concern<sup>6</sup>

(APF = 50) Any supplied-air respirator that has a tight-fitting facepiece and is operated in a continuous-flow mode

(APF = 50) Any self-contained breathing apparatus with a full facepiece

(APF = 50) Any supplied-air respirator with a full facepiece

### **Emergency or planned entry into unknown concentrations or IDLH conditions:**

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

### **Escape:**

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted canister providing protection against the compound of concern<sup>6</sup>/Any appropriate escape-type, self-contained breathing apparatus

## ***Exposure Routes***

inhalation, skin and/or eye contact

## ***Symptoms***

Irritation eyes, mucous membrane; pulmonary edema; chronic respiratory disease

## ***Target Organs***

Eyes, respiratory system

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