

International Chemical Safety Cards

OZONE

ICSC: 0068

<p>OZONE (cylinder) O₃ Molecular mass: 48.0</p> <p>CAS # 10028-15-6 RTECS # RS8225000 ICSC # 0068</p>
--

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Not combustible but enhances combustion of other substances. Many reactions may cause fire or explosion.	NO open flames, NO sparks, and NO smoking. NO contact with combustible substances.	In case of fire in the surroundings: all extinguishing agents allowed.
EXPLOSION	Risk of fire and explosion when heated or on contact with combustible substances (alkene, ethers).	Closed system, ventilation, explosion-proof electrical equipment and lighting.	In case of fire: keep cylinder cool by spraying with water. Combat fire from a sheltered position.
EXPOSURE		STRICT HYGIENE!	
• INHALATION	Cough. Headache. Shortness of breath. Sore throat.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration if indicated. Refer for medical attention.
• SKIN	ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Refer for medical attention.
• EYES	Redness. Pain. Loss of vision.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• INGESTION			
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Evacuate danger area! Consult an expert! Ventilation. If in liquid state: NEVER direct water jet on liquid (extra personal protection: self-contained breathing apparatus).	Fireproof if in building. Separated from all substances. Cool. Ozone is frequently stored refrigerated in halons.		

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0068

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities © IPCS CEC 1993

International Chemical Safety Cards

OZONE

ICSC: 0068

I M P O R T A N T D A T A	<p>PHYSICAL STATE; APPEARANCE: COLOURLESS OR BLUISH GAS , WITH CHARACTERISTIC ODOUR.</p> <p>PHYSICAL DANGERS: The gas is heavier than air.</p> <p>CHEMICAL DANGERS: The substance decomposes on warming producing oxygen , which increases fire hazard. The substance is a strong oxidant and reacts violently with combustible and reducing materials. Reacts with alkenes, aromatics, such as aniline, and ethers, bromine, nitrogen compounds and rubber producing shock-sensitive compounds. Attacks metals except gold and platinum.</p> <p>OCCUPATIONAL EXPOSURE LIMITS (OELs): TLV: 0.1 ppm; 0.20 mg/m³ as Ceiling (ACGIH 1991-1992).</p>	<p>ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation.</p> <p>INHALATION RISK: A harmful concentration of this gas in the air will be reached very quickly on loss of containment.</p> <p>EFFECTS OF SHORT-TERM EXPOSURE: The substance irritates the eyes and the respiratory tract. Inhalation of the gas may cause lung oedema (see Notes). Inhalation of the gas may cause asthmatic reactions (see Notes). The liquid may cause frostbite. The substance may cause effects on the central nervous system , resulting in headache and impaired vigilance and performance.</p> <p>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: Lungs may be affected by repeated or prolonged exposure to the gas.</p>	
	<p>PHYSICAL PROPERTIES</p>	<p>Boiling point: -112°C Melting point: -193°C</p>	<p>Solubility in water, g/100 ml at 0°C: 0.1 Relative vapour density (air = 1): 1.6</p>
	<p>ENVIRONMENTAL DATA</p>	<p>This substance may be hazardous to the environment; special attention should be given to vegetation.</p>	
	<p>NOTES</p>		
<p>The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate spray, by a doctor or a person authorized by him/her, should be considered. The symptoms of asthma often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Anyone who has shown symptoms of asthma due to this substance should avoid all further contact with this substance. Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.</p>			

ADDITIONAL INFORMATION

ICSC: 0068

OZONE

© IPCS, CEC, 1993

**IMPORTANT
LEGAL
NOTICE:**

Neither the CEC or the IPCS nor any person acting on behalf of the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use.