

# Material Safety Data Sheet

Printing date 04/16/2007

Version 1

Reviewed on 04/13/2007

## 1 Identification of substance

· **Product details**

· **Trade name:** Sulphur Dioxide

· **Article number:** 007-01-0009BOC

· **Creation date:** 05/19/2006

· **Manufacturer/Supplier:**

BOC Canada Limited  
5860 Chedworth Way  
Mississauga, Ontario L5R 0A2  
www.bocgases.ca

TELEPHONE NUMBER: (905) 501-1700

24-HOUR EMERGENCY TELEPHONE NUMBER: (905) 501-0802

EMERGENCY RESPONSE PLAN NO: 2-0101

Please ensure that this MSDS is received by the appropriate person

· **Information department:** Customer Service Centre: 1-866-385-5349

## 2 Composition/Data on components

· **Chemical characterization:**

· **CAS No. Description**

7446-09-5 Sulphur Dioxide

· **Identification number(s)**

· **EINECS Number:** 231-195-2

· **EU Number:** 016-011-00-9

## 3 Hazards identification

· **Hazard description:**



Toxic

· **WHMIS-symbols:**

A - Compressed gas

D1B - Toxic material causing immediate and serious toxic effects



· **HMIS-ratings (scale 0 - 4)**

HEALTH 3 Health = 3

FIRE 0 Fire = 0

REACTIVITY 0 Reactivity = 0

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**· NFPA ratings (scale 0 - 4)**

Health = 3  
Fire = 0  
Reactivity = 0

**· Information pertaining to particular dangers for man and environment:**

Toxic by inhalation.  
Causes burns.

**· Classification system:**

The classification is in line with internationally approved calculation standards. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

**\* 4 First aid measures****· General information:**

Immediately remove any clothing soiled by the product.  
Remove breathing apparatus only after contaminated clothing have been completely removed.  
In case of irregular breathing or respiratory arrest provide artificial respiration.

**· After inhalation:**

Supply fresh air or oxygen; call for doctor.  
In case of unconsciousness place patient stably on the body side position.

**· After skin contact:** Immediately wash with water and soap and rinse thoroughly.**· After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.**· After swallowing:** Not applicable**\* 5 Fire fighting measures****· Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**· Protective equipment:** Wear self-contained respiratory protective device.**\* 6 Accidental release measures****· Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventillation.  
Stop leak - ONLY if possible to do so without risk.

**· Measures for environmental protection:**

Prevent seepage into sewage system, workpits and/or cellars.  
In case of gas release or seepage into the ground inform responsible authorities.

**· Measures for cleaning/collecting:**

Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventillation.

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## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**
  - Ensure good ventilation/exhaustion at the workplace.
  - Open and handle cylinder with care.
  - Handle with care. Avoid jolting, friction, and impact.
  - Use only in well ventilated areas.
  - Store cylinders upright with valve protection cap in place and firmly secured to prevent falling or being knocked over.
  - If difficulty with operating cylinder valve is experienced discontinue use and contact supplier.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Keep respiratory protective device available.
  - Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
  - Do not expose cylinder to temperatures higher than 50°C (122 °F)
- **Information about storage in one common storage facility:**
  - Sources of ignition should be removed from storage area.
- **Further information about storage conditions:**
  - Keep cylinder valve tightly closed.
  - Store cylinder in a well ventilated area.
  - Store in accordance with local fire code and/or building code or any pertaining regulations.

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:**
  - Adequate local ventilation.
  - Safety showers and eyewash stations should be nearby.
- **Components with limit values that require monitoring at the workplace:**

<b>7446-09-5 Sulphur Dioxide (23-100%)</b>	
EL	Short-term value: 5 ppm
	Long-term value: 2 ppm
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Store protective clothing separately.
  - Avoid contact with the eyes and skin.
  - Protective clothing should be kept free of oil and grease.
  - PPE should be inspected and maintained regularly to retain its effectiveness.
- **Breathing equipment:**
  - Use atmosphere-supplying respirators (e.g. supplied-air: demand, pressure-demand, or continuous-flow or self-contained breathing apparatus: demand or pressure-demand or combination supplied-air with auxiliary self-contained air supply atmosphere-supplying respirator) in case of insufficient ventilation.

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**Protection of hands:**


Protective gloves.

**Material of gloves**

- (Resistance to breakthrough longer than 8 hours): Saranex (TM), Barricade (TM), Responder (TM).
- (Resistance to breakthrough longer than 4 hours): Teflon (TM).

**Not suitable are gloves made of the following materials:**

Resistance to breakthrough less than 1 hour: Polyethylene

- **Eye protection:** Splash resistant safety goggles and face shield.

**Body protection:**

Acid resistant protective clothing, heavy weight coveralls, safety boots, and insulated impervious (ie. neoprene, PVC) gloves.

### 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Gaseous.
<b>Color:</b>	Colorless
<b>Odor:</b>	Pungent

**Change in condition**
**Melting point/Melting range:** -75.5°C

**Boiling point/Boiling range:** -10°C

**Flash point:** Not applicable.

**Danger of explosion:** Product does not present an explosion hazard.

**Solubility in / Miscibility with**
**Water at 20°C:** 1.000 g/l

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

### 11 Toxicological information

**Acute toxicity:**
**LD/LC50 values that are relevant for classification:**
**7446-09-5 Sulphur Dioxide**

Inhalative	LC50/1hr	2520 ppm (rat)
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**Primary irritant effect:**

- **on the skin:** Caustic effect on skin and mucous membranes.

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- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### \* 12 Ecological information

- **General notes:** Must not reach bodies of water or drainage ditch undiluted or unneutralized.

### \* 13 Disposal considerations

- **Product:**
- **Recommendation:**  
Cylinder and unused product should be returned to vendor. Disposable cylinder must be disposed of in accordance with local regulations.
- **Uncleaned packagings:**
- **Recommendation:**  
Cylinder and unused product should be returned to vendor. Disposable cylinder must be disposed of in accordance with local regulations.
- **Recommended cleansing agent:** None applicable.

### \* 14 Transport information

· **TDG and DOT regulations:**



- **Hazard class:** 2
- **Identification number:** UN1079
- **Packing group:** -
- **Proper shipping name (technical name):** SULPHUR DIOXIDE
- **Label:** 2.3+8
- **Packaging group:** -

· **Maritime transport IMDG:**



- **IMDG Class:** 2.3
- **UN Number:** 1079
- **Label:** 2.3+8
- **Packaging group:** -
- **EMS Number:** F-C,S-U

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· **Marine pollutant:** No  
 · **Propper shipping name:** SULPHUR DIOXIDE

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 2  
 · **UN/ID Number:** 1079  
 · **Label:** 2.3+8  
 · **Packaging group:** -  
 · **Propper shipping name:** SULPHUR DIOXIDE

## 15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

Substance is listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **IARC (International Agency for Research on Cancer)**

Group 2B: The agent (mixture) is possibly carcinogenic to humans. The exposure circumstance entails exposures that are possibly carcinogenic to humans.

· **NTP (National Toxicology Program)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

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**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

**· OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

**· Canadian substance listings:****· Canadian Domestic Substances List (DSL)**

Substance is listed.

**· Canadian Ingredient Disclosure list (limit 0.1%)**

Substance is not listed.

**· Canadian Ingredient Disclosure list (limit 1%)**

Substance is listed.

**· Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

**· Hazard symbols:**

Toxic

**· Risk phrases:**

Toxic by inhalation.

Causes burns.

**· Safety phrases:**

Keep container in a well-ventilated place.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· Department issuing MSDS:** Customer Service Centre: 1-866-385-5349**· Contact:** Canada Technical Services: 1-866-385-5349**· \* Data compared to the previous version altered.**