

# Safety Data Sheet

## Sulphur dioxide

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name Sulphur dioxide  
Chemical formula SO<sub>2</sub>  
Company identification Supplier of your choice  
Emergency phone numbers Please, inform about

### 2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation Substance.  
Components/Impurities Contains no other components or impurities which will influence the classification of the product.  
CAS Nr 07446-09-5  
EEC Nr (from EINECS) 231-195-2

### 3 HAZARDS IDENTIFICATION

Hazards identification Toxic by inhalation.  
Corrosive to eyes, respiratory system and skin.  
Liquefied gas

### 4 FIRST AID MEASURES

Inhalation Toxic by inhalation.  
Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested.  
Call a doctor.  
Apply artificial respiration if breathing stopped.  
Delayed adverse effects possible.  
Skin/eye contact May cause chemical burns to skin and cornea (with temporary disturbance to vision)  
Immediately flush eyes thoroughly with water for at least 15 minutes.  
Remove contaminated clothing. Drench affected area with water for at least 15 minutes  
Obtain medical assistance  
Ingestion Ingestion is not considered a potential route of exposure.

### 5 FIRE FIGHTING MEASURES

Specific hazards Non flammable  
Exposure to fire may cause containers to rupture/explode.  
Hazardous combustion products None that are more toxic than the product itself.  
Suitable extinguishing media All known extinguishants can be used.  
Specific methods If possible, stop flow of product.  
Move away from the container and cool with water from a protected position.  
Special protective equipment for fire fighters Use self-contained breathing apparatus and chemically protective clothing.

### 6 ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate area.  
Use self-contained breathing apparatus and chemically protective clothing.  
Ensure adequate air ventilation.  
Environmental precautions Try to stop release.  
Reduce vapour with fog or fine water spray.  
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.  
Clean up methods Ventilate area.  
Hose down area with water.  
Wash contaminated equipment or sites of leaks with copious quantities of water.

## 7 HANDLING AND STORAGE

Handling and storage Keep container below 50°C in a well ventilated place.  
Refer to supplier's container handling instructions.  
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature.  
Contact your gas supplier if in doubt.  
Do not allow backfeed into the container.  
Suck back of water into the container must be prevented.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit value for country UK: Sulphur dioxide - LTEL: 2ppm; STEL: 5ppm (EH40/2000)  
Germany: Sulphur dioxide - MAK: 2ppm  
France: Sulphur dioxide - VLE: 5ppm  
Personal protection Keep suitable chemically resistant protective clothing readily available for emergency use.  
Keep self contained breathing apparatus readily available for emergency use.  
Do not smoke while handling product.  
Ensure adequate ventilation.  
Protect eyes, face and skin from liquid splashes.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight 64  
Melting point -75.5 °C  
Boiling point -10 °C  
Critical temperature 158 °C  
Relative density, gas 2.2 (air=1)  
Relative density, liquid 1.5 (water=1)  
Vapour Pressure 20°C 3.3 bar  
Solubility mg/l water 113 g/l at 20°C  
Appearance/Colour Colourless gas  
Odour Pungent  
Other data Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

## 10 STABILITY AND REACTIVITY

Stability and reactivity Reacts with water to form corrosive acids.  
With water causes rapid corrosion of some metals.  
May react violently with alkalis.

## 11 TOXICOLOGICAL INFORMATION

General Severe corrosion to skin, eyes and respiratory tract at high concentrations.  
Delayed fatal pulmonary oedema possible.  
LC50/1h (ppm) 2520 ppm

## 12 ECOLOGICAL INFORMATION

General May cause pH changes in aqueous ecological systems.

## 13 DISPOSAL CONSIDERATIONS

General Avoid discharge to atmosphere.  
Do not discharge into any place where its accumulation could be dangerous.  
Gas may be scrubbed in alkaline hypochlorite solution under controlled conditions to avoid violent reaction.  
Contact supplier if guidance is required.

## 14 TRANSPORT INFORMATION

UN Nr 1079  
Class/Div 2.3  
Subsidiary risk 8  
ADR/RID Item Nr 2,2° TC  
ADR/RID Hazard Nr 268  
Labelling ADR Label 6.1: toxic substance.  
Label 8: corrosive substance.  
Other transport information Avoid transport on vehicles where the load space is not separated from the driver's compartment.  
Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting product containers ensure that they are firmly secured and:

- cylinder valve is closed and not leaking
- valve outlet cap nut or plug (where provided) is correctly fitted
- valve protection device (where provided) is correctly fitted
- there is adequate ventilation.
- compliance with applicable regulations.

## **15 REGULATORY INFORMATION**

Number in Annex I of Dir 67/548 016-011-00-9.

EC Classification T;R23|C;R34

-Symbols T: Toxic

Labelling of cylinders

-Symbols Label 6.1: toxic substance.

Label 8: corrosive substance.

-Risk phrases R23 Toxic by inhalation.

R34 Cause burns (to eyes, respiratory system and skin).

-Safety phrases S9 Keep container in well ventilated place.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## **16 OTHER INFORMATION**

Ensure all national/local regulations are observed.

Ensure operators understand the toxicity hazard.

Users of breathing apparatus must be trained.

Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

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