

EC-Safety Data Sheet Sulphur dioxide

Date:

Page: 1/4

1 Substance/Preparations- and Firm name

Safety Data Sheet-No.	S 0026
Product name	Sulphur dioxide
Chemical notation	SO₂
Commercial name	Sulphur dioxide 3.8
Manufacturer	AGA GAS GmbH Tropfowitzstr. 5 22529 Hamburg
Telephone	040 - 4 20 20 26

2 Composition / Data of Constituents

Substance	Medium
Constituents	Contains no other components or impurities which influence the classification of the product
CAS-No.	07446-09-5
EG-No./EINECS-No.	231-195-2

3 Possible dangers

Danger notice	Liquefied gas. Caustic for eyes, breathing system and skin. In case of breathing toxic.
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4 First-aid

Breathing	In case of breathing toxic effect. Use breathing apparatus and bring the persons to the fresh air. Hold them warm and calm. Call a doctor. At disorders of breathing use oxygen apparatus.
Contact with skin and eyes	Can cause causticity for skin and cornea (with temporary visual disorder). Immediately wash the eyes with water for at least 15 minutes. Take off contaminated clothings. Wash contaminated parts of the body with water for at least 15 minutes. Call a doctor.
Swallowing	Swallowing is not considered as possible way of exposition

5 Fire fighting

Special risks	Not combustible. Fire can cause burst/explosion of the gas bottle
Dangerous products of combustion	No
Appropriate medium for fire fighting	All known mediums for fire fighting may be used
Special methods	If possible, stop gas leakage. Move away the bottles or cool bottles with water from safe position.
Special protection for fire brigade	Use breathing apparatus and protection clothes

EC-Safety Data Sheet Sulphur dioxide

Date:

Page: 2/4

6 Unintentional release

Personal protective proceeding	Evacuate the area. Use breathing apparatus and protection clothes. Look for adequate aeration.
Environment protective proceeding	Try to stop gas leakage. Densify steam with water fog or fine spray stream. Prevent infiltration of the fluid into sewerage system, cellar, assembly pits or other places, on which accumulation can be dangerous.
Cleaning method	Aerate the room. Sprinkle the area with water. Wash contaminated equipment or the region of the leakage with much water.

7 Handling and storing

Handling and storing	Store the gas bottles at temperature less than 50 °C in adequate aerated location. Pay attention to the instructions of the vendor of the gas. Use equipment only, which is appropriated for this product and the provided pressure and temperature. In case of doubt contact the vendor of the gas. Prevent backflow to the gas bottle. Prevent infiltration of water into the gas bottle.
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8 Limit of exposition and personal protection

Personal protection proceeding	Look for adequate aeration. Keep on hand breathing apparatus for emergency situations. Keep on hand applicable protection clothes for emergency situations. Protect eyes, face and skin of splashes.
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9 Physical and chemical characteristics

Molar mass	64
Melting point	-75,5 °C
Boiling point	-10 °C
Critical temperature	158 °C
Relative density, gaseous (air = 1)	2,3
Steam pressure at 20 °C	3,3 bar
Solubility in water (mg/l)	hydrolyzed
Appearance	colorless gas
Smell	sharp
Other data	Gas and steam are heavier as air. They can assemble in closed rooms, specially on the floor or in lower areas.

EC-Safety Data Sheet

Sulphur dioxide

Date:

Page: 3/4

10 Stability and reactivity

Stability and reactivity

Builds with water caustic acid solution.
 Reacts with alkaline solutions very brisk.
 Reacts with most metals in presence of moisture, whereby high-flammable hydrogen arises.
 Causes with water fast corrosion of some metals.

11 Toxicologic informations

General

Heavy causticity of skin, eyes and breathing system at higher concentrations.
 With delay dead by lung edema possible.

LC50/lh (ppm)

2520 ppm

12 Ecologic informations

General

Can change the pH-value of aqueous ecologic systems.

13 Disposal

General

Prevent infiltration into sewerage system, cellar, assembly pits or similar places, on which accumulation of the gas could be dangerous.
 Don't let off into the atmosphere.
 Call back the vendor of the gas, if advisory is necessary.
 Under controlled conditions the gas must be waxed with alkaline solution, to avoid a brisk reaction.

14 Transport

UN-number

1079

ADR/RID/GGVS/GGVE

Class: 2Fig: 2 TC

Identification ADR/GGVS

Danger ticket 6.1: toxic substance/preparation

Danger ticket 8: corrosive substance/preparation

Class/subclass (IMO/ICAO)

2.3 (passenger plane prohibited: special direction A1)

Add. risk

8

Identification IMO

Danger sign: No. 2.3 + 8

IMDG-Code Page

2179

Identification ICAO

Danger sign: No. 2.3 + 8

More transport-informations

Transport in vehicles only, whose cargo space is separated from the driver's cab.

Lock gas bottles before transport.

The driver must know the possible dangers of the load and he must know, what to do in case of accidents or in emergency situations.

The valve of the bottles must be closed and tight.

The hexagon cap nut of the valve or the vent plug (if available) must be mounted correct.

The protective gear of the valve (if available) must be mounted correct.

Look for adequate aeration.

Pay attention to current directions.

EC-Safety Data Sheet

Sulphur dioxide

Date:

Page: 4/4

15 Directions

Number in annex I of guardlines 67/548

EC-classification

- Symbol

R-principles

S-principles

Notice for special risks

Safety-advice

016-011-00-9

T:R23IC:R34

T: Toxic

23-34

9-26-36/37/39-45

R23 Toxic in case of breathing.

R34 Causes causticity.

S9 Store the gas bottles in adequate aerated location.

S26 Contact with the eyes: wash the eyes with water carefully. Call a doctor.

S36/37/39 At work wear applicable protection clothes, protection gloves and safety glasses/face protection.

16 Other data

It must be secured, that gas-handling persons pay attention to the risk of poisoning.

User of breathing apparatus must be trained adequate.

Before the product is used in any new process, there should be carried out carefully tests about the compatibility of the material and safety.

All data are no contract assurances of product characteristics.

They are according to todays state of knowledge.