

Sulphur dioxide

SDS_113_CLP



2.3 : Toxic gas.



8 : Corrosive substance.

Danger



1 Identification of the substance/mixture and of the company/undertaking

Product identifier
Trade name : Sulphur dioxide
SDS Nr : SDS_113_CLP
Chemical description : Sulphur dioxide
CAS No :007446-09-5
EC No :231-195-2
Index No :016-011-00-9

Chemical formula : SO₂
Registration-No. : Registration deadline not expired.
Use : Industrial and professional. Perform risk assessment prior to use.
Company identification : Energas Ltd.
Westmorland Street, Hull HU2 0HX,
United Kingdom

E-Mail address (competent person): : mark.nugent@energas.co.uk
Emergency telephone number : 01482 329333

2 Hazards identification

Classification of the substance or mixture

Hazard Class and Category Code
Regulation EC 1272/2008 (CLP)

- **Physical hazards** : Gases under pressure - Liquefied gas - Warning (H280)
- **Health hazards** : Acute toxicity, Inhalation - Category 3 - Danger (H331)
Skin corrosion - Category 1B - Danger (H314)
STOT SE : Corrosive to respiratory tract. (EUH071)

Classification EC 67/548 or EC 1999/45 : T; R23
C; R34

Label elements

Labelling Regulation EC 1272/2008 (CLP)

Sulphur dioxide

SDS_113_CLP

2 Hazards identification (continued)

• Hazard pictograms



• Hazard pictograms code

: GHS06 - GHS05 - GHS04

• Signal word

: Danger

• Hazard statements

: H331 : Toxic if inhaled.
H314 : Causes severe skin burns and eye damage.
H280 : Contains gas under pressure; may explode if heated.

• Supplemental hazard information

: EUH071 : Corrosive to the respiratory tract.

• Precautionary statements

- Prevention

: P260 : Do not breathe gas, vapours.
P280 : Wear protective gloves/protective clothing/eye protection/face protection.

- Response

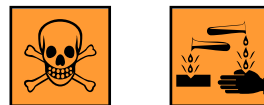
: P304+P340+P315 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice / attention.
P303+P361+P353+P315 : IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get immediate medical advice / attention.
P305+P351+P338+P315 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice / attention.

- Storage

: P405 : Store locked up.
P403 : Store in a well-ventilated place.

Labelling EC 67/548 or EC 1999/45

Symbol(s)



: T : Toxic
C : Corrosive

R Phrase(s)

: R23 : Toxic by inhalation.
R34 : Causes burns.

S Phrase(s)

: S9 : Keep container in a 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 when possible).

Other hazards

Other hazards

: None.

3 Composition/information on ingredients

Substance / Preparation

: Substance.

Substance name	Contents	CAS No	EC No	Index No	Registration no	Classification
Sulphur dioxide	100 %	7446-09-5	231-195-2	016-011-00-9	NOTE 2	T; R23 C; R34 ----- Acute Tox. 3 (H331) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Liq. Gas (H280) EUH071

Sulphur dioxide

SDS_113_CLP

3 Composition/information on ingredients (continued)

Contains no other components or impurities which will influence the classification of the product.

Note 1: Listed in Annex IV / V REACH, exempted from registration.

Note 2: Registration deadline not expired.

Full text of R-phrases see chapter 16

4 First aid measures

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.
- **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** : Exposure to fire may cause containers to rupture/explode.
- Hazardous combustion products** : None.
- Extinguishing media**
 - **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** : 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.

Sulphur dioxide

SDS_113_CLP

7 Handling and storage (continued)

Storage : Keep container below 50°C in a well ventilated place.

8 Exposure controls/personal protection

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.

Occupational Exposure Limits : Sulphur dioxide : TLV[©] -TWA [ppm] : 2
Sulphur dioxide : TLV[©] -STEL [ppm] : 5

9 Physical and chemical properties

Physical state at 20 °C : Gas.

Colour : Colourless gas.

Odour : Pungent.

Molecular weight : 64

Melting point [°C] : -75.5

Boiling point [°C] : -10

Critical temperature [°C] : 158

Vapour pressure [20°C] : 3.3 bar

Relative density, gas (air=1) : 2.3

Relative density, liquid (water=1) : 1.5

Solubility in water [mg/l] : Completely soluble.

Flammability range [vol% in air] : Non flammable.

Auto-ignition temperature [°C] : Not applicable.

Other data : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10 Stability and reactivity

Hazardous decomposition products : Hydrogen.

Incompatible materials : Reacts with water to form corrosive acids.
May react violently with alkalis.
Reacts with most metals in the presence of moisture, liberating hydrogen, an extremely flammable gas.
With water causes rapid corrosion of some metals. Moisture.

11 Toxicological information

Toxicity information : Severe corrosion to skin, eyes and respiratory tract at high concentrations.
Delayed fatal pulmonary oedema possible.

Rat inhalation LC50 [ppm/4h] : 1260

Sulphur dioxide

SDS_113_CLP

12 Ecological information

Ecological effects information : 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 solution under controlled conditions to avoid violent reaction.
Contact supplier if guidance is required.

14 Transport information

UN number : 1079

• Labelling ADR, IMDG, IATA



: 8 : Corrosive substance.
2.3 : Toxic gas.

Land transport

ADR/RID

H.I. nr : 268

UN proper shipping name : SULPHUR DIOXIDE

Transport hazard class(es) : 2

- ADR/RID Classification code : 2 TC

- Packing Instruction(s) - General : P200

- Tunnel Restriction : C/D : Passage forbidden through tunnels of category C when carried in tanks.
Passage forbidden through tunnels of category D and E.

Sea transport

- IMO-IMDG code

• Proper shipping name : SULPHUR DIOXIDE

• Class : 2.3

- IMO Packing group : P200

- Emergency Schedule (EmS) - Fire : F-C

- Emergency Schedule (EmS) - Spillage : S-U

- Instructions - Packing : P200

Air transport

- ICAO/IATA

- Proper shipping name : SULPHUR DIOXIDE

• Class : 2.3

Sulphur dioxide

SDS_113_CLP

14 Transport information (continued)

• **Passenger and Cargo Aircraft** :

• **Cargo Aircraft only** :

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

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

Seveso regulation 96/82/EC : Listed

16 Other information

List of full text of R-phrases in section 3. : R23 : Toxic by inhalation.
R34 : Causes burns.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

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