

SULPHUR DIOXIDE**0074**

October 2006

CAS No: 7446-09-5
 RTECS No: WS4550000
 UN No: 1079
 EC No: 016-011-00-9

Sulfurous oxide
 Sulfurous anhydride
 Sulfur oxide
 (cylinder)
 SO₂
 Molecular mass: 64.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible. Heating will cause rise in pressure with risk of bursting.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			In case of fire: cool cylinder by spraying with water but avoid contact of the substance with water. Combat fire from a sheltered position.
EXPOSURE		STRICT HYGIENE!	IN ALL CASES CONSULT A DOCTOR!
Inhalation	Cough. Shortness of breath. Sore throat. Laboured breathing.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Artificial respiration may be needed. 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.	Safety goggles face shield or eye protection in combination with breathing protection.	First rinse with plenty of water (remove contact lenses if easily possible). Refer for medical attention.
Ingestion			

SPILLAGE DISPOSAL

Evacuate danger area! Personal protection: complete protective clothing including self-contained breathing apparatus. Consult an expert! Ventilation. NEVER direct water jet on liquid.

PACKAGING & LABELLING

EU classification
 T Symbol
 R: 23-34
 S: (1/2-)9-26-36/37/39-45
 Note: 5
UN classification
 UN Hazard Class: 2.3
 UN Subsidiary Risks: 8
GHS classification
 Signal: Warning
 Cylinder-Skull-Excl mark-Enviro
 Contains refrigerated gas; may cause cryogenic burns or injury
 Toxic if inhaled
 Causes eye irritation
 Causes damage to respiratory tract if inhaled
 Causes damage to respiratory tract through prolonged or repeated exposure if inhaled
 Harmful to aquatic life

EMERGENCY RESPONSE

Transport Emergency Card: TEC (R)-20S1079 or 20G2TC
 NFPA Code: H 3; F 0; R 0

SAFE STORAGE

Ventilation along the floor. Dry.

IPCS

International
 Programme on
 Chemical Safety



Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission ©
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SEE IMPORTANT INFORMATION ON THE BACK.



IMPORTANT DATA

Physical State; Appearance

COLOURLESS GAS OR COMPRESSED LIQUEFIED GAS,
WITH PUNGENT ODOUR.

Physical dangers

The gas is heavier than air.

Chemical dangers

The solution in water is a medium strong acid. Reacts violently
with sodium hydride. Attacks plastic.

Occupational exposure limits

TLV: 2 ppm as TWA, 5 ppm as STEL; A4 (not classifiable as a
human carcinogen); (ACGIH 2006).

MAK: 0.5 ppm, 1.3 mg/m³; Peak limitation category: I(1);

Pregnancy risk group: C; (DFG 2006).

Routes of exposure

The substance can be absorbed into the body by inhalation.

Inhalation risk

A harmful concentration of this gas in the air will be reached very
quickly on loss of containment.

Effects of short-term exposure

Rapid evaporation of the liquid may cause frostbite. The
substance is irritating to the eyes and the respiratory tract.
Inhalation may cause asthma-like reactions.

Effects of long-term or repeated exposure

Repeated or prolonged inhalation exposure may cause asthma.

PHYSICAL PROPERTIES

Boiling point: -10/C

Melting point: -75.5/C

Relative density (water = 1): 1.4 at -10/C (liquid)

Solubility in water, ml/100 ml at 25/C: 8.5

Vapour pressure, kPa at 20/C: 330

Relative vapour density (air = 1): 2.25

ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms.

NOTES

Depending on the degree of exposure, periodic medical examination is suggested.

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.

Do NOT spray water on leaking cylinder (to prevent corrosion of cylinder).

Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible
for the use which might be made of this information