

Safety data sheet

Carbon dioxide, solid (Dry ice).

Creation date : 27.01.2005
Revision date : 05.01.2011

Version : 2.0

DE / E

SDS No. : 9390
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1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name

Carbon dioxide, solid (Dry ice).
EC No (from EINECS): 204-696-9
CAS No: 124-38-9
Index-Nr. -

Chemical formula CO₂

REACH Registration number:

Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.

Known uses

Not known.

Company identification

Linde AG, Linde Gas Division, Seitnerstraße 70, D-82049 Pullach
E-Mail Address Info@de.linde-gas.com
Emergency phone numbers (24h): 089-7446-0

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification acc. to Regulation (EC) No 1272/2008/EC (CLP/GHS)

Classification acc. to Directive 67/548/EEC & 1999/45/EC

Not classified as hazardous to health.

Asphyxiant in high concentrations.

Label Elements

- Hazard Statements

EIGA-As Asphyxiant in high concentrations.

- Precautionary Statements

Precautionary Statement Prevention

None.

Precautionary Statement Reaction

None.

Precautionary Statement Storage

P403 Store in a well-ventilated place.

Precautionary Statement Disposal

None.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation: Substance.

Components/Impurities

Carbon dioxide, solid (Dry ice).

CAS No: 124-38-9

Index-Nr.: -

EC No (from EINECS): 204-696-9

REACH Registration number:

Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.

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

4 FIRST AID MEASURES

Inhalation

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of

asphyxiation. Low concentrations of CO₂ cause increased respiration and headache. 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

Immediately flush eyes thoroughly with water for at least 15 minutes. In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.

Ingestion

To swallow must be absolutely avoided, since coldness and developing pressure could be dangerous. Obtain medical assistance.

5 FIRE FIGHTING MEASURES

Specific hazards

Exposure to fire may cause containers to rupture/explode. Non flammable.

Hazardous combustion products

None.

Suitable extinguishing media

All known extinguishants can be used.

Specific methods

If possible, stop flow of product. Move container away or cool with water from a protected position.

Special protective equipment for fire fighters

In confined space use self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions

Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.

Environmental precautions

Try to stop release. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

Clean up methods

Ventilate area.

7 HANDLING AND STORAGE

Handling

Ensure adequate air ventilation. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Refer to supplier's handling instructions.

Storage

Keep container below 50°C in a well ventilated place. Observe "Technische Regeln Druckgase (TRG) 280 Ziffer 5"

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit value

Value type	value	Note
Germany - AGW	5.000 ppm	TRGS 900

Personal protection

Ensure adequate ventilation.

9 PHYSICAL AND CHEMICAL PROPERTIES

General information

Odour: No odour warning properties.

Important information on environment, health and safety

Molecular weight: 44 g/mol

Melting point: -56,6 °C

Sublimation point: -78,5 °C

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Critical temperature: 31 °C**Autoignition temperature:** Not applicable.**Flammability range:** Not applicable.**Relative density, gas:** 1,52**Relative density, liquid:** 0,82**Vapour Pressure 20 °C:** 57,3 bar**Solubility mg/l water:** 2000 mg/l**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**

Stable under normal conditions.

11 TOXICOLOGICAL INFORMATION**General**

No known toxicological effects from this product.

12 ECOLOGICAL INFORMATION**General**

When discharged in large quantities may contribute to the greenhouse effect.

Global Warming Potential GWP

1

13 DISPOSAL CONSIDERATIONS**General**

Do not discharge into any place where its accumulation could be dangerous. May be vented to atmosphere in a well ventilated place. Discharge to atmosphere in large quantities should be avoided. Contact supplier if guidance is required.

14 TRANSPORT INFORMATION**ADR/RID**

Not submitted to ADR/RID.

IMDG

Class 9

UN number and proper shipping name

UN 1845 Carbon dioxide, solid

Labels 9

Packing Instruction P003 Packing group III

EmS FC, SV

IATA

Class 9

UN number and proper shipping name

UN 1845 Carbon dioxide, solid

Labels 9

Packing Instruction P904 Packing group III

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. Ensure adequate ventilation.

15 REGULATORY INFORMATION**Further national regulations**

Pressure Vessel Regulation

Regulations for the prevention of industrial accidents

Water pollution class

Not polluting to waters according to VwVwS from 27.07.2005.

TA-Luft

Not classified according to TA-Luft.

16 OTHER INFORMATION

Ensure all national/local regulations are observed. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Advice

Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted. Details given in this document are believed to be correct at the time of going to press.

Further information

Linde safety advice

No. 3 Oxygen deficiency

No. 11 Transport of gas receptacles in vehicles

No. 12 Handling of carbon dioxide CO₂

End of document