

Material Safety Data Sheet

SDS date: 01-10-2017

SDS version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product Identifier****Trade Name:** Acetylene (dissolved)**Product- no.:** -**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Recommended uses: Acetylene is a fuel gas, which together with oxygen is used in a number of processes such as: gas welding, flame cutting of steel, braze welding, heating of metals, flame cleaning of concrete, etc. Furthermore, acetylene is used for special lighting purposes, as well as fuel gas in certain types of analytical equipment.

1.3. Details of the supplier of the safety data sheet**Company and address**

Strandmøllen A/S
Strandvejen 895
DK-2930 Klampenborg
Tlf.: +45 701 02 107
www.strandmollen.dk

Contact person and E-mail:kundeservice@strandmollen.dk**The Safety data sheet is completed and validated by:**

mediator A/S, Centervej 2, DK-6000 Kolding. Consultant: HG

1.4. Emergency telephone number

Use your national or local emergency number - See section 4 "First aid measures".

SECTION 2: Hazards identification**2.1. Classification of substance or mixture**

CLP (1272/2008): Flam. Gas 1;H220, Press. Gas (Liquefied);H280.

See full text of H-phrases in section 16.

2.2. Label elements**Signal word:**

Danger

According to EU regulation 1907/2006 (REACH)

Extremely flammable gas. (H220)

Contains gas under pressure; may explode if heated. (H280)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. (P377)

Eliminate all ignition sources if safe to do so. (P381)

Protect from sunlight. Store in a well-ventilated place. (P403)

2.3. Other hazards

This product contains a small amount of organic solvent. Damages on the nerves system and inner organs as the liver and kidney can occur, when repeatedly exposure to organic solvents.

Additional labelling:

-

Additional warnings:

-

SECTION 3: Composition/information on ingredients

3.1./3.2. Substances/Mixtures

Substance	EU-Index no.	CAS / EINECS no.	CLP-classification	w/w %	Note
Acetylene	601-015-00-0	74-86-2/ 200-816-9	Flam. Gas 1;H220, Press. Gas;H280	< 100	-
Acetone	606-001-00-8	67-64-1/ 200-662-2	Flam Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336, EUH066	< 1	1

1 = The substance is an organic solvent.

See full text of H-phrases in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:	Seek fresh air. Keep victim under observation. Seek medical advice in case of discomfort.
Ingestion:	Not relevant as the product is a gas. Wash out mouth thoroughly and drink 1-2 glasses of water in small sips.
Skin contact:	Wash skin with soap and water.
Eye contact:	Not relevant as the product is a gas.
Burns:	Flush with water until pain ceases. Remove clothing that is not stuck to the skin – seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained.
Additional information:	When obtaining medical advice, show the safety data sheet or label.

According to EU regulation 1907/2006 (REACH)

4.2. Most important symptoms and effects, both acute and delayed

Inhalation of gases may cause irritation to the upper airways. Risk of suffocation at high concentrations in tight spaces.

4.3. Indication of any immediate medical attention and special treatment needed

No special immediate treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguish with powder, foam or water mist.

5.2. Special hazards arising from the substance or mixture

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Hazardous fumes are formed in fire conditions. Heating will cause a rise in pressure in packaging with a risk of bursting. Use water or water mist to cool non-ignited stock.

5.3. Advice for firefighters

Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases – seek fresh air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment – see section 8. Use the product under well-ventilated conditions. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment.

6.2. Environmental precautions

Not relevant as the product is a gas.

6.3. Methods and material for containment and cleaning up

Not relevant as the product is a gas.

6.4. Reference to other sections

See above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

See section 8 for information about precautions for use and personal protective equipment. Smoking and naked flames prohibited. Work under effective process ventilation (e.g. local exhaust ventilation). Avoid contact with copper, mercury, silver and brass containing more than 70 % of copper. Protect the flask against the ingress of water. Flush the equipment before supplying gas to ensure the absence of air. The equipment must be equipped with flashback arrestors or flame barriers. Only use equipment, which is suitable for this product and applied pressure and temperature.

7.2. Conditions for safe storage, including any incompatibilities

Pressurized container: Do not expose to temperatures exceeding 50 °C. Acetylene flasks must be utilized in an upright position and must be secured with a chain. The discharge of gas from the flask must not exceed the speed indicated by the supplier.

7.3. Specific end use(s)

See section 1.

According to EU regulation 1907/2006 (REACH)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Substance	Long-term exposure limit	Short-term exposure limit	Note
Acetone	500 ppm – 1210 mg/m ³	1500 ppm – 3620 mg/m ³	-

DNEL and PNEC values:

DNEL – Acetylene:

Inhalation	Short term	Systemic effects	Workers	2675 mg/m ³
Inhalation	Short term	Local effects	Workers	2675 mg/m ³
Inhalation	Long Term	Systemic effects	Workers	2675 mg/m ³
Inhalation	Long Term	Local effects	Workers	2675 mg/m ³
Inhalation	Short term	Systemic effects	General population	2675 mg/m ³
Inhalation	Short term	Local effects	General population	2675 mg/m ³
Inhalation	Long Term	Systemic effects	General population	2675 mg/m ³
Inhalation	Long Term	Local effects	General population	2675 mg/m ³

DNEL – Acetone:

Inhalation	Short term	Local effects	Workers	2420 mg/m ³
Dermal	Long Term	Systemic effects	Workers	186 mg/kg bw/day
Inhalation	Long Term	Systemic effects	Workers	1210 mg/m ³
Oral	Long Term	Systemic effects	General population	62 mg/kg bw/day
Dermal	Long Term	Systemic effects	General population	62 mg/kg bw/day
Inhalation	Long Term	Systemic effects	General population	200 mg/m ³

PNEC – Acetone:

Water	Fresh	10,6 mg/L
Water	Marine	1,06 mg/L
Water	Intermittent releases	21 mg/L
Soil	-	29.5 mg/kg soil dw

8.2. Exposure controls

There are no exposure scenarios for this product.

Appropriate engineering controls:

Wash hands before breaks, before using restroom facilities, and at the end of the work. Wear personal protective equipment specified in below section.

Personal protective equipment:



Breathing equipment:	In case of insufficient ventilation, wear respiratory protective equipment. Use air-supplying respiratory protective equipment
Hand protection:	Recommended: Leather gloves.
Eye protection:	Wear safety goggles/ face protection when cutting and welding.
Body and skin protection:	Use safety shoes when handling flask and antistatic work clothes.

Environmental exposure controls:

Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form:	Gas
Colour:	Colourless
Odor:	Like Garlic
pH:	-
Melting point/ Freezing Point (°C):	-
Initial boiling point(°C):	- 84
Decomposition temperature (°C):	-
Flash point (°C):	-
Evaporation speed:	-
Ignition (°C):	325
Upper / lower Flammability or Explosion limits (vol-%):	88 – 2,4
Vapour pressure (bar, 20 °C):	44
Vapour density (air=1)	0,9
Density (g/ml):	-
Solubility in water (mg/l):	1185
Partition coefficient [n-octanol/water], Log K _{ow} :	-
Critical temperature (°C):	35
Evaporation rate (nBuAc=1):	-
Viscosity:	-
Flammability:	-
Oxidizing properties:	-

9.2. Other information

Molecular weight:	25 g/mol
Surface tension (mN/m, 25 °C):	-

SECTION 10: Stability and reactivity

10.1. Reactivity

Explosive with or without contact with air. Forms with copper explosive acetylide. Do not use alloys with a contain of more than 70% of copper.

10.2. Chemical stability

Extremely flammable gas. The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixtures with air. Reacts with strong oxidisers.

10.4. Conditions to avoid

Avoid heating and contact with ignition sources. Prevent contact with air.

10.5. Incompatible materials

Avoid contact with strong oxidising agents.

10.6. Hazardous decomposition products

No special precautions regarding contact with other materials at the recommended storage conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Route of exposure	Species	Test	Result
Acetylene	Inhalation	Dog	LC50 / 3 h	> 850000 ppm
Acetone	Oral	Rat	LD50	5800 mg/kg bw
Acetone	Inhalation	Rat	LC50 / 3 h	55700 ppm
Acetone	Dermal	Rabbit	LD50	> 7426 mg/kg bw

Symptoms:

Inhalation: The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. In severe cases, the gas can replace the atmospheric air, so there can be a choking hazard. Symptoms may include rapid pulse, deep breathing and slight dizziness and at higher concentrations loss of mobility and loss of consciousness. The exposed person may not notice suffocation.

Skin contact: Not relevant as the product is a gas.

Eye contact: Not relevant as the product is a gas.

Ingestion: During normal handling gases can not be consumed.

Long term effects:

This product contains a small amount of organic solvent. Prolonged or repeated inhalation of vapours may cause damage to the central nervous system.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Test duration	Species	Test	Result
Acetone	96 h	Fish	LC50	7280 mg/L
Acetone	48 h	Daphnia	LC50	8800 mg/L
Acetone	14 d	Algae	EC50	2844 mg/L

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
Acetylene	Nej	OECD Guideline 301 D	0-1% after 28 days
Acetone	Ja	OECD Guideline 301 B	90,9% after 28 days

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
Acetylene	Nej	0.37	-
Acetone	Nej	-0,23	-

12.4. Mobility in soil

-

12.5. Results of PBT and vPvB assessment

No data.

12.6. Other adverse effects

None.

According to EU regulation 1907/2006 (REACH)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The product should be treated as dangerous waste.

EWC Code

16 05 04

Rented flasks should be disposed of via supplier.

Specific labelling

-

Contaminated packaging:


Uncleansed packaging is to be disposed of via the local waste-removal scheme.

SECTION 14: Transport information


This product is included in the regulation of dangerous goods.

14.1 -14.4.

ADR

UN number.:	UN proper shipping name	Transport hazard class(es)	Packing group
1001	ACETYLENE, DISSOLVED	2.1 	-

IMDG

UN-no.:	Proper shipping name	Transport hazard class(es)	Packing group
1001	ACETYLENE, DISSOLVED	2.1 	-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Large stock of this product is regulated by the Seveso directive (2012/18).

Restrictions for application:

-

Demands for specific education:

-

Additional labelling:

-

According to EU regulation 1907/2006 (REACH)

15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

SECTION 16: Other information

Other information:

Sources:

EC regulation 1907/2006 (REACH).

Directive 2000/532/EC.

EC Regulation 1272/2008 (CLP).

EH40/2005 WELs (United Kingdom (UK), 8/2007).

Full text of H-phrases as mentioned in section 2+3:

H220 - Extremely flammable gas.

H225 - Highly flammable liquid and vapour.

H280 - Contains gas under pressure; may explode if heated.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

EUH066 - Repeated exposure may cause skin dryness or cracking.

Other

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Minor changes have been made in following sections:

1 – 16.

This material safety data sheet replaces version:

1.0 (24-02-2015)
