

Material Safety Data Sheet

SDS date: 08-11-2018

SDS version: 1.3

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

1.1. Product Identifier

Trade Name: Gas mixture with oxygen > 23%

Product- no.: -

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended uses: Food packaging and welding etc. Do NOT inhale. Laboratory uses.

Uses advised against: This product must not be used for purposes other than those recommended without first seeking the advice of the supplier.

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: KN

1.4. Emergency telephone number

NHS: 111

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

According to EU regulation 1907/2006 (REACH)

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

CLP (1272/2008): Ox. Gas 1;H270, Press. Gas (Compressed);H280.

See full text of H-phrases in section 16.

2.2. Label elements



Signal word:

Danger

May cause or intensify fire; oxidiser. (H270)

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

Keep/Store away from clothing/combustible materials. (P220)

Keep valves and fittings free from oil and grease. (P244)

In case of fire: Stop leak if safe to do so. (P370+P376)

Protect from sunlight. Store in a well-ventilated place. (P410+P403)

2.3. Other hazards

-

Additional labelling:

-

Additional warnings:

Do NOT inhale.

SECTION 3: Composition/information on ingredients

3.1./3.2. Substances/Mixtures

| Substance | EU-Index no. | Cas / EINECS no. | CLP-classification | w/w% | Note |
|----------------------------|--------------|--------------------------|---------------------------------|---------|------|
| Oxygen (O ₂) | 008-001-00-8 | 7782-44-7/ 231-956-9 | Ox. Gas 1;H270, Press. Gas;H280 | 23-<100 | - |
| Nitrogen (N ₂) | - | 7727-37-9 / 231-783-9 | Press. Gas;H280 | <77 | - |
| Helium (He) | - | 7440-59-7 / 231-168-5 | Press. Gas;H280 | <77 | - |
| Argon (Ar) | - | 7440-37-1 / 231-147-0 | Press. Gas;H280 | <77 | - |

For the wording of the listed risk phrases refer to 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.

According to EU regulation 1907/2006 (REACH)

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

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

Inhalation of gases may cause irritation to the upper airways. See section 11.

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). Keep valves and fittings free from oil and grease. Protect the flask against the ingress of water. 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. The flasks must be stored and utilized in an upright position and must be secured with a chain.

According to EU regulation 1907/2006 (REACH)

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits according to EH40/2005 Workplace exposure limits (Third edition, 2018): -

DNEL and PNEC values:

No data.

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.

Personal protective equipment:



| | |
|-------------------------|---------------------------------------|
| Respiratory protection: | Not required. |
| Hand protection: | Recommended: Leather gloves. |
| Eye/face protection: | Wear safety goggles/ face protection. |
| Skin protection: | Use safety shoes when handling flask. |

Environmental exposure controls:

Make sure that when using the product damming material is available in immediate vicinity. If possible use spillage tray during work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|----------------|
| Appearance: | Colourless gas |
| Odour: | Odourless |
| Odour threshold: | - |
| pH: | - |
| Melting point/ Freezing Point (°C): | - |
| Initial boiling point and boiling range (°C): | - |
| Flash point (°C): | - |
| Evaporation rate: | - |
| Flammability (solid, gas) | - |
| Upper / lower flammability or explosion limits (vol-%): | - |
| Vapour pressure (mbar, 25 °C): | - |
| Vapour density (air=1) | - |
| Relative density (g/ml): | - |
| Solubility(ies): | - |
| Partition coefficient: n-octanol/water: | - |
| Auto-ignition temperature (°C): | - |
| Decomposition temperature (°C): | - |
| Viscosity (mPas, 25 °C): | - |
| Explosive properties: | - |
| Oxidising properties: | - |

9.2. Other information

| | |
|--------------------------------|---|
| Content of solids (%): | - |
| Surface tension (mN/m, 25 °C): | - |

SECTION 10: Stability and reactivity

10.1. Reactivity

Non-reactive

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

May cause or intensify fire; oxidiser. Keep valves and fittings free from oil and grease.

10.4. Conditions to avoid

Avoid heating and contact with ignition sources.

10.5. Incompatible materials

Avoid contact with strong reducing agents.

10.6. Hazardous decomposition products

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

According to EU regulation 1907/2006 (REACH)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Based on the existing data, the classification is not met.

| Substance | Route of exposure | Species | Test | Result |
|-----------|-------------------|---------|------|--------|
| No data | - | - | - | - |

Skin corrosion/irritation: May cause slight irritation.

Serious eye damage/irritation: May cause eye irritation.

Respiratory or skin sensitisation: Based on the existing data, the classification is not met.

Germ cell mutagenicity: Based on the existing data, the classification is not met.

Carcinogenicity: Based on the existing data, the classification is not met.

Reproductive toxicity: Based on the existing data, the classification is not met.

STOT-single exposure: Based on the existing data, the classification is not met.

STOT-repeated exposure: Based on the existing data, the classification is not met.

Aspiration hazard: Based on the existing data, the classification is not met.

SECTION 12: Ecological information

12.1. Toxicity

| Substance | Test duration | Species | Test | Result |
|-----------|---------------|---------|------|--------|
| No data | - | - | - | - |

12.2. Persistence and degradability

| Substance | Biodegradability | Test | Result |
|-----------|------------------|------|--------|
| No data | - | - | - |

12.3. Bioaccumulative potential

| Substance | Potential bioaccumulation | LogPow | BCF |
|-----------|---------------------------|--------|-----|
| No data | - | - | - |

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

The mixture does not meet the criteria for PBT or vPvB.

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 |
|-------------|--|---|---------------|
| 3156 | COMPRESSED GAS, OXIDIZING, N.O.S. (Oxygen, Helium, Nitrogen, Argon) | 2.2 + 5.1   | - |

IMDG

| UN-no.: | Proper shipping name | Transport hazard class(es) | Packing group |
|---------|--|---|---------------|
| 3156 | COMPRESSED GAS, OXIDIZING, N.O.S. (Oxygen, Helium, Nitrogen, Argon) | 2.2 + 5.1   | - |

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).

Sources:

EH40/2005 Workplace exposure limits (Third edition, 2018).

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).

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

H270 - May cause or intensify fire; oxidiser.

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

| Classification according to Regulation (EC) Nr. 1272/2008: | |
|--|------------------|
| Ox. Gas 1; H270 | Expert judgement |
| Press Gas; H280 | Expert judgement |

Abbreviations and acronyms used in the safety data sheet:

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals. Regulation (EC) No 1907/2006.

CLP: Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.

CAS-Number.: Chemical Abstracts Service number.

EC-Number.: EINECS and ELINCS Number (see also EINECS and ELINCS).

DNEL: Derived No Effect Level.

PNEC(s): Predicted No Effect Concentration(s).

STOT: Specific Target Organ Toxicity.

LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).

LC50: Lethal Concentration to 50 % of a test population.

EC50: The effective concentration of substance that causes 50% of the maximum response.

PBT: Persistent, Bioaccumulative and Toxic.

vPvB: Very Persistent and Very Bioaccumulative.

Other

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

Minor changes have been made in following sections:

1-16 – Update.

This material safety data sheet replaces version:

1.2 (09-10-2018)
