

Safety Data Sheet



According to Regulation (EC) No. 1907/2006

Product Name: EVGASL 1
Product No.: EVGASL 1

Version: 1.1/EN Date: April-2018

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifiers

Product name : EVGASL 1
Product No. : EVGASL 1

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

Identified uses : R&D and industrial uses.

1.3. Details of the supplier of the safety data sheet

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2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 17/008.
Not a hazardous substance or mixture according to EC Directives 67/548/EEC and 1999/45/EC.

2.2. Label elements

2.3. Other hazards

None

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Chemical characterization

Mixture

3.2. Components

CAS-No.	Chemical name	Quantity
163702-07-6	Methyl nonafluorobutyl ether	20 - 80%
163702-08-7	Methyl nonafluoroisobutyl ether	20 - 80%

4. FIRST AID MEASURES

4.1. Description of first aid measures

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

General advice

Remove soiled or soaked clothing immediately. Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash affected area with soap and water. If signs/symptoms persist, get medical attention. No need for first aid is anticipated.

In case of eye contact

Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention. No need for first aid is anticipated.

If swallowed

Thoroughly clean the mouth with water. Never give anything by mouth to an unconscious person.

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

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

Treatment: treat symptomatically.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Exposure to extreme heat can give rise to thermal decomposition. In the event of fire the following can be released: carbon monoxide, carbon dioxide, hydrogen fluoride, perfluoroisobutylene, carbonyl

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fluoride, ammonia. Under certain conditions of combustion traces of other toxic substances cannot be excluded.

5.3. Advice for firefighters

Special Fire Fighting Procedures: Water may be used to blanket the fire. Exposure to extreme heat can give rise to thermal decomposition. Wear full protective equipment and self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: No unusual fire or explosion hazards are anticipated. No unusual effects are anticipated during fire extinguishing operations. Avoid breathing the products and substance that may result from the thermal decomposition of the product or the other substances in the fire zone. Keep containers cool with water spray when exposed to fire to avoid rupture.

5.4. Further information

None.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Avoid breathing vapours, mist or gas.

6.2. Environmental precautions

Do not let product enter drains. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation to appropriate authorities. Dispose of collected material as soon as possible.

6.3. Methods and materials for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with appropriate organic solvent. Keep in suitable, closed containers for disposal. Dispose of absorbed material in accordance with the regulations.

6.4. Reference to other sections

For further information on exposure monitoring and disposal see sections 8 and 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling: Provide ventilation of working area (local exhaust ventilation if necessary).

General protective measures: Avoid contact with oxidizing agents. Avoid continuous exposure of the material to extreme conditions of heat, i.e. above 150°C (welding, open flame or equipment failure). Avoid exceeding a watt density of 50 watts/inch² from a heater surface. Under certain conditions, continuous exposure to 150°C results in very slight decomposition of this product and therefore, is a very conservative use temperature threshold.

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Hygiene measures: Wash hands before breaks and after work. Remove soiled or soaked clothing immediately. Do not eat, drink or smoke when working.

7.2. Conditions for safe storage, including any incompatibilities

Further information: Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3. Specific end uses

No further recommendations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

8.2. Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye protection

Safety glasses with side pieces. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this mixture. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Skin and body protection

Protective clothing.

Respiratory protection

In case of formation of vapours/aerosols:
Short term: filter apparatus, combinaison filter A-P2.

9. PHYSICAL AND CHEMICAL PROPERTIES

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9.1. Information on basic physical and chemical properties

a) Appearance	Form: liquid Colour: transparent
b) Odour	characteristic
c) Odour threshold	no data available
d) pH (20°C)	not applicable
e) Melting point/freezing point	no data available
f) Initial boiling point	not applicable
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid/gas)	no data available
j) Vapour pressure	no data available
k) Vapour density	no data available
l) Relative density	no data available
m) Water solubility	no data available
n) Partition coefficient: n-octanol/water	no data available
o) Autoignition temperature	no data available
p) Decomposition temperature	no data available
q) Viscosity, dynamic	no data available
r) Explosive properties	no data available
s) Oxidizing properties	no data available

9.2. Other safety information

No data available.

10. STABILITY AND REACTIVITY

10.1. Reactivity

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No data available

10.2. Chemical stability

The product is stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.

10.5. Incompatible materials

Strong oxidizing agents, strong acids, strong bases.

10.6. Hazardous decomposition products

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute oral toxicity

LD50

Species: rat

Dose: > 5 g/kg

Skin corrosion/irritation

No data available.

Serious eye damage/eye irritation

No data available.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Specific target organ toxicity – single exposure

No data available.

Specific target organ toxicity – Repeated exposure

No data available.

Aspiration hazard

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No aspiration toxicity classification.

Additional information

The toxicological data given are by analogy. Possibility of sensitisation through skin contact.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product

In accordance with local authority regulations, take to special waste incineration plant.

Contaminated Packaging

If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

14. TRANSPORT INFORMATION

14.1. sUN number

ADR/RID: -

IMDG: -

IATA: -

14.2. Transport hazard class(es)

ADR/RID: not dangerous good

IMDG: not dangerous good

IATA: not dangerous good

15. REGULATORY INFORMATION

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

Special local regulations must be adhered to when using products containing irritating or corrosive substances. BG Info Sheet M 050 "Activities Involving Hazardous Substances". Precautions to be observed for storage of hazardous substances: TRGS 510 "Storage of Hazardous Substances in Movable Containers".

15.2. Chemical safety assessment

No chemical safety assessment was carried out for this product.

16. OTHER INFORMATION

Copyright 2015 EV Group GmbH. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. EV Group GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product. See the reverse side of invoice or packing slip for additional terms and conditions of sale.