

SAFETY DATA SHEET

according to Regulation (EC) Nr. 1907/2006
taking into account the Annex to Regulation (EU) Nr. 2015/830

GASPRUF-Fluessig with Frost protection

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Revision Date 04/16/20 (*= revision)

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

1.1. Product identifier

Trade name Gaspruf-Fluessig with Frost protection -24°C
Material number 1-3500

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

Use Gaspruf-Fluessig is a leak detector for detecting finest leaks on gas- or pneumatic pipes.

Uses advised against -

*1.3. Details of the supplier of the safety data sheet

Company Otto Fahsig GmbH
Stadtweg 10
D-83404 Ainring

Telefon: +49 (0) 8654/8027
Telefax: +49 (0) 8654/8234

E-Mail: verkauf@fahsig.de

***Current SDS:** Current SDS can be downloaded using the internet link below:
www.gaspruf.de/SDS_select.htm

1.4. Emergency telephone number +49 (0) 8654 8027

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Monoethylenglykol: H302 Harmful if swallowed
H373 May cause damage to the kidneys through prolonged or repeated exposure.
Route of exposure: oral

2.2. Label elements

- Hazard pictograms GHS07 + GHS08



- Signal word: **Warning**
- **Hazard statements:**

H302 Harmful if swallowed
H373 May cause damage to the kidneys through prolonged or repeated exposure.
Route of exposure: oral

- **Precautionary statements:**

P260 Do not breathe mist/vapours/spray
P264 Wash thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell
P314 Get medical advice/attention if you feel unwell
P330 Rinse mouth
P501 Dispose of contents/container in accordance with local/regional/national/international regulations

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2.3. Other hazards

None

Section 3: Composition/information on ingredients

3.1 Substances

This product is a mixture

3.2. Mixtures

Mixture of substances listed below with non-hazardous additives

Composition:

CAS-No. 137-16-6 EC-No. 205-281-5	Lauroylsarcoside-Na-salt Eye Dam. 1; H318, H332	0,1-1%
CAS-No. 78330-21-9	Alcohols, C11-14-iso-, C13-rich, ethoxylated H318, H400, H412	0,1-1%
CAS-No. 107-21-1 EC-No. 2034733	Monoethylenglykol, ethane-1,2-diol H302, H373	40,00%
Other substances	Unknown harmless substance/supplier's secrecy	50-100%

Section 4: First aid measures

Due to ingredient monoethylene glycol (40%)

4.1. Description of first aid measures

General advice:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness bring patient into stable side position for transport.

After skin contact

Remove contaminated clothing immediately. Wash affected areas with plenty of water and soap. If irritation continues, contact a doctor.

After eye contact

Rinse opened eye for 15 minutes under running water. Consult a doctor in case of symptoms.

After swallowing

Rinse out mouth and then drink plenty of water. Do not induce vomiting; instantly call for medical help. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

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

Irritant effect to skin, eyes and respiratory organs; headaches; nausea; dizziness feeling; imbalances; anesthesia; unconsciousness.

Information for doctor:

A good diuresis to maintain; check of the kidney function, electrolyte household. Early administration of ethanol can counteract the toxic effects of ethylene glycol (metabolic acidosis and kidney damages). Supporting measures required.

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Treatment is subject to both the judgement of the doctor and the patient's condition.

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

No further relevant information available.

Section 5: Firefighting measures

Due to ingredient monoethylene glycol (40%)

5.1. Extinguishing media

Suitable extinguishing agents: CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

Can be released in case of fire: carbon monoxide (CO), carbon dioxide (CO₂)

5.3 Advice for firefighters

Protective equipment: Wear full protective suit with self-contained breathing apparatus.

Additional information:

Cool endangered containers with water spray jet. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains.

Section 6: Accidental release measures

Due to ingredient monoethylene glycol (40%)

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment and keep unprotected persons away. Avoid contact with skin, eyes and clothes.
Ensure adequate ventilation. Do not breathe aerosols. Use breathing protection against the effects of fumes/dust/aerosol.

6.2. Environmental precautions

Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil.
If large amounts are released, the authorities must be informed.

6.3. Methods and materials for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.

6.4. Reference to other sections

Information regarding Safe handling, see chapter 7.
For personal protection see section 8.
For disposal considerations see section 13.

Section 7: Handling and storage

Due to ingredient monoethylene glycol (40%)

7.1. Precautions for safe handling

The usual good standards of industrial hygiene should be maintained. Prevent formation of aerosols.
Ensure good ventilation/exhaustion at the workplace. Do not breathe vapour. Avoid contact with skin, eyes and clothing.

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Information about protection against explosions and fires:

Keep ignition sources away -Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Store in cool, dry conditions in well sealed containers.

Requirements to be met by storerooms and containers:

Observe official regulations on storage and handling of water hazardous substances
Store in original containers or in PE-containers.

Information about storage in one common storage facility:

Store away from oxidizing agents. Pay attention to regulations/technical guidelines on mixed storage of toxic substances.

Further information about storage conditions:

Store in cool, dry conditions in well sealed containers. Protect from heat and direct sunlight.

Storage class 10 (VCI -concept, 2007)

7.3. Specific end uses

No further relevant information available.

Section 8: Exposure controls/personal protection

Due to ingredient monoethylene glycol (40%)

8.1. Control parameters

-Components with critical values that require monitoring at the workplace:

107-21-1 ethane-1,2-diol (50-100%)

WEL Short-term value: 104** mg/m³, 40** ppm
Long-term value: 10* 52** mg/m³, 20** ppm
Sk *particulate **vapour

-DNELs

Dermal DNEL (population) 53 mg/kg bw/day (Long-term -systemic effects)
DNEL (worker) 106 mg/kg bw/day (Long-term -systemic effects)

Inhalative DNEL (population) 7 mg/m³ (Long-term -local effects)
DNEL (worker) 35 mg/m³ (Long-term -local effects)

-PNECs

PNEC aqua 10 mg/l (intermittent releases)
10 mg/l (fresh water)
1 mg/l (marine water)

PNEC sediment 20,9 mg/kg dw (fresh water)
37 mg/kg (fresh water)
3,7 mg/kg (marine water)

PNEC STP 199,5 mg/l (sewage treatment plant)

PNEC soil 1,53 mg/kg (soil)

Additional information: The lists that were valid during the compilation were used as basis.

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8.2. Exposure controls

General protective and hygienic measures:

Keep away from food, beverages and fodder. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin. Gases, fumes and aerosols should not be inhaled. Do not eat or drink while working.

Breathing equipment:

Use breathing protection in case of insufficient ventilation.

Recommended filter device for short term use: Combination filter A-P2

Take care of limitations and rules for the use of breathing protection equipment (BGR 190).

Protection of hands:

To avoid skin problems reduce the wearing of gloves to the required minimum. Check protective gloves prior to each use for their proper conditions. The glove material has to be impermeable and resistant to the product/the substances/the preparation. Preventive skin protection by use of skin-protecting agent is recommended.

Material of gloves:

Chloroprene rubber (CR), Nitrile rubber (NBR), Butyl rubber (BR), Fluorocarbon rubber (Viton).

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Change gloves if notice sign of disenchantment.

Eye protection:

Tightly sealed safety glasses.

Body protection:

Standard protective working clothes, chemical resistant safety-shoes or wellingtons. If skin contact is possible, wear impenetrable protective clothing.

Section 9: Physical and chemical properties

Due to ingredient monoethylene glycol (40%)

9.1. Information on basic physical and chemical properties

Appearance:	liquid
Color:	colourless
Odour:	weak self-odour
Melting point:	-24°C (Ethane-1,2-diol)
Boiling point (1013 hPa):	100°C
Flash point:	111°C (Ethane-1,2-diol)
Ignition temperature:	410 °C (Ethane-1,2-diol)
Explosive properties:	Product is not explosive. However, information explosive air/steam mixtures is possible.
Critical values of explosion:	lower: 3,2 Vol % upper: 28 Vol %
Vapour pressure (20°):	0,067 hPa
Water solubility:	completely miscible
pH-value:	6-8
Partition coefficient:	(n-octanol/water): -1.36 log POW
Viscosity (20°C):	dynamic 20mPas

9.2. Other information

Density (20°C):	ca.1,11g/cm ³
Molecular weight:	62,07 g/mol
Evaporation:	600 (Ether = 1)

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Section 10: Stability and reactivity

Due to ingredient monoethylene glycol (40%)

10.1. Reactivity

Please note chapter 10.3 „Possibility of hazardous reactions“

10.2. Chemical stability

No decomposition if used and stored according to specifications. Can be distilled without decomposing at normal pressure.

10.3. Possibility of hazardous reactions

Reacts with oxidizing agents

10.4. Conditions to avoid

No further relevant information available.

10.5 Incompatible materials to avoid

Strong acids. Strong oxidizing agents.

10.6. Hazardous decompositions products

Formation of carbon monoxide and carbon dioxide in case of fire.
Thermal decomposition can produce a variety of compounds, the precise nature of which will depend on the decomposition conditions.

Section 11: Toxicological information

Due to ingredient monoethylene glycol (40%)

11.1. Information on toxicological effects

-Acute toxicity: Harmful if swallowed

-LD/LC50 values that are relevant for classification: Dermal LD50>3500 mg/kg (mus); 9530 mg/kg (rabbit)

-Primary irritant effect:

Skin corrosion/irritation

Prolonged skin contact may cause irritation.

Serious eye damage/irritation

Slight irritant, but not sufficient to trigger an EC label

Sensitisation:

No sensitizing effect known.

-Other information (about experimental toxicology):

No experimental indications of mutagenic effects (Ames test negative).
Animal tests proved liver and kidney damages as well as deposits of calcium salts in different tissues.

-Additional toxicological information:

Skin resorption possible. Irritant effect to the respiratory organs.
Oral toxicity is moderate at single intake. Excessive exposition can cause effects to the central nervous systems, cardio-pulmonary effects (metabolic acidosis) and kidney failure. The estimated deadly dose for the average human being is 100 ml (1,2-ethandiol).

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-CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

Germ cell mutagenicity:

Based on available data , the classification criteria are not met.

Carcinogenicity:

Based on available data , the classification criteria are not met.

Reproductive toxicity:

Based on available data , the classification criteria are not met.

STOT-single exposure:

Based on available data , the classification criteria are not met.

STOT-repeated exposure:

May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral

Aspiration hazard:

Based on available data , the classification criteria are not met.

Section 12: Ecological information

Due to ingredient monoethylene glycol (40%)

12.1. Toxicity

Aquatic toxicity:

LC 50 / 96 h	18000 mg/l (Oncorhynchus mykiss)
	72860 mg/l (Pimephales promelas)
EC 50 / 48 h	>100 mg/l (Daphnia magna)
	>10000 mg/l (Algae)
EC 50 / 96 h	6500-13000 mg/l (Selenastrum capricornutum)

12.2. Persistence and degradability

The product is readily biodegradable.

Biodegradability: 90-100% (OECD 301A) (10h, OECD 301A/ISO 7827)

12.3. Bioaccumulative potential

No bioaccumulation

12.4. Mobility in soil

No further relevant information available

Ecotoxicological effects:

Behaviour in sewage processing plants: Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Respiratory inhibition of communal activated sludge EC 20:

EC 20/0,5h >1995 mg/l (activated sludge (method OECD 209))

Additional ecological information:

Do not allow to enter drainage system, surface or ground water.

Water hazard class 1 (Assessment by list): slightly hazardous for water.

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12.5. Results of PBT and vPvB assessment

No applicable

12.6. Other adverse effects

No further relevant information available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application related. The valid waste code number of the application can be obtained from the European waste catalogue.

Uncleaned packagings: Contaminated packagings are to be emptied optimally, they can be reuse after cleaning. Non-cleanable packaging have to be dispose like the Substance /the product.

Recommended cleaning agent: Water, if necessary with cleaning agent.

Section 14: Transport information

Section 14.1 to 14.5

ADR	no hazard
ADN	no hazard
RID	no hazard
IATA/ICAO	no hazard
IMDG	no hazard

No dangerous goods under the transport regulations

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code (International Bulk Chemicals Code)

Not applicable

Section 15: Regulatory information

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

Labeling according to Regulation (EC) No 1272/2008:

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS07 + GHS08

- Signal word: **Warning**
- Hazard statements:
 - H302 Harmfull if swallowed
 - H373 May cause damage to the kidneys through prolonged or repeated exposure (oral).
- Precautionary statements:

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P260	Do not breathe mist/vapours/sprays
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P301+312	If swallowed: Call a poison center/doctor if you feel unwell
P314	Get medical advice/attention if you feel unwell
P330	Rinse mouth
P501	Dispose of contents/container in accordance with local/regional/national/international regulations

Technical instructions (air):

Class Share in % NK 50-100

Water hazard class:

Water hazard class 1;slightly hazardous for water.

15.2.Chemical Safety Assessment

For this mixture is no chemical safety assessment available

Section 16: Other information

Observe national and local legal regulations.

This information is based on our present knowledge. However, this information does not constitute an assurance of product characteristics and does not constitute a contractual legal relationship.

Full text of H-Statements (Section 3)

H302	Harmfull if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H330	Fatal if inhaled
H373	May cause damage to the kidneys through prolonged or repeated exposure (oral)
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long-lasting effects

Full text of other abbreviations

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
DNEL	Derived No-Effect Level
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration to 50%
LD50	Lethal Dose to 50%
MARPOL	International Convention for the Prevention of Pollution from Ships
PNEC	Predicted No-Effect Concentration
PBT	Persistent, Bioaccumulative, Toxic
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and very Bioaccumulative

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Otto Fahsig GmbH makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Otto Fahsig GmbH products for its particular application. Any existing intellectual/industrial property rights must be observed. Due the possible changes in our products and applicable national and

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international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Otto Fahsig GmbH products, are available upon and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Otto Fahsig GmbH.