1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: EUROLITE Smoke Fluid -B- Basic, Nebelfluid
EUROLITE Smoke Fluid -C- Standard, Nebelfluid
EUROLITE Smoke Fluid -P- Profi, Nebelfluid
EUROLITE Smoke Fluid -E- Extrem, Nebelfluid
EUROLITE Smoke Fluid -X- Extrem A2, Nebelfluid

REACH Registration No.: not applicable

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

Relevant identified uses: Fog and smoke simulation

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier: Steinigke Showtechnic GmbH
Andreas-Bauer-Straße 5
D-97297 Waldbüttelbrunn
Phone: +49 931 4061-0
Fax: +49 931 4061-700
Homepage: www.steinigke.com
E-Mail: info@steinigke.com
Contact: Herr Schuster
Telefon: +49 931 4061-434
Fax: +49 931 4061-9110
E-Mail: sds@steinigke.de

1.4. Emergency Telephone number

Opening hours: +49 931 4061-434 (Mo. – Fr., 8.00 – 16.00 Uhr)
Contact: Herr Schuster
Telefon: +49 931 4061-434
E-Mail: sds@steinigke.de

2. Hazards identification

2.1. Classification of the mixture

<table>
<thead>
<tr>
<th>Hazard class</th>
<th>Hazard category</th>
<th>Target organ</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity (oral)</td>
<td>Categorie 4</td>
<td>...</td>
<td>H302</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity</td>
<td>Categorie 2</td>
<td>Kidney</td>
<td>H373</td>
</tr>
<tr>
<td>(Repeated Exposure)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. Label elements

Hazard pictograms

Signal word: Warning

Hazard statements: H302, H373

Harmful if swallowed
May cause damage to organs through prolonged or repeated exposure.

*) All information applies to diethylene glycol
Precautionary statements

P102 Keep out of reach of children.
P260 Do not breathe dust/fume/gas/mist/vapours/spray
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
P314 Get medical advice/attention if you feel unwell.

2.3. Other Hazards
No

3. Composition/information on ingredients

3.2 Mixture

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Hazard class and category</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>Acute Tox. 4; STOT RE 2; H302, H373</td>
<td>&lt;= 25%</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>111-46-6</td>
<td></td>
</tr>
<tr>
<td>EG-No.</td>
<td>203-872-2</td>
<td></td>
</tr>
<tr>
<td>Index-No.</td>
<td>603-140-00-6</td>
<td></td>
</tr>
</tbody>
</table>

Hazard statements

H302 Harmful if swallowed
H373 May cause damage to organs through prolonged or repeated exposure.

4. First aid measures

4.1. Description of first aid measures

General notes: Consult a physician. Show this safety data sheet to the doctor in attendance
Following inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Following skin contact: Take off contaminated clothing. If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Following eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Following ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in section 11

4.3. Indication of any immediate medical attention and special treatment needed
Data not available

5. Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

* All information applies to diethylene glycol
5.2. Special hazards arising from the substance or mixture
   Carbon oxides

5.3. Advice for firefighters
   Wear self contained breathing apparatus for fire fighting if necessary

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
   Risk of slipping due to leakage, spillage or condensed product
   Keep unprotected persons
   Ensure adequate ventilation

6.2. Environmental precautions
   The mixture is not water-endangering product
   More spillage or leakage prevented if this is possible without risk.
   Do not let product enter drains

6.3. Methods and material for containment and cleaning up
   Soak up with inert absorbent material and dispose of according to local authority guidelines

6.4. Reference to other sections
   For disposal see section 13.

7. Handling and storage

7.1. Precautions for safe handling
   Store in unbreakable containers. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
   For precautions see section 2.2

7.2. Conditions for safe storage, including any incompatibilities
   Store in cool place. The ambient temperature must not exceed 60 °C. 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.
   Do not store together with oxidizing agents. Do not store together with strong alkalis

7.3. Specific end use(s)
   Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.
8. Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-Nr.</th>
<th>Limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>111-46-6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>8 hours ppm</th>
<th>8 hours mg/m³</th>
<th>Short term* ppm</th>
<th>Short term* mg/m³</th>
<th>Legal basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>10</td>
<td>44</td>
<td>40</td>
<td>176</td>
<td>Gesamte Rechtsvorschrift für Grenzwerteverordnung 2011, Fassung vom 12.06.2015, Anhang I</td>
</tr>
<tr>
<td>Germany</td>
<td>10</td>
<td>44</td>
<td>40</td>
<td>176</td>
<td>TRGS - 900 Arbeitsplatzgrenzwert</td>
</tr>
<tr>
<td>Switzerland</td>
<td>10</td>
<td>44</td>
<td>40</td>
<td>176</td>
<td>SUVA: Grenzwerte am Arbeitsplatz 2015</td>
</tr>
</tbody>
</table>

Remarks

<table>
<thead>
<tr>
<th>Country</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>* Short term is 15 minutes unless otherwise specified</td>
</tr>
<tr>
<td>Germany</td>
<td>* Short term is 15 minutes unless otherwise specified</td>
</tr>
<tr>
<td>Switzerland</td>
<td>A risk of teratogenic effects in compliance with the occupational exposure limit and the biological limit value (BGW) need not be feared.</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Damage to the fetus does not need to be feared if the MAK value ia adhered to.</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

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

- **Eye/face protection**: Recommended during refilling. Use for eye protection by official standards (NIOSH, EN 166) tested and approved equipment.
- **Hand protection**: Wear gloves when refilling. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance to local authority guidelines. Wash, dry and apply cream hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
- **Body Protection**: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- **Respiratory protection**: Where risk assessment shows aerosol and mist formation can not be excluded, a respirator must be kept, which meets the government standards.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) **Appearance**: Form: viscous liquid
   Colour: colourless
b) **Odour**: neutral
c) **Odour threshold**: Data not available
d) **pH**: 6 - 8

*) All information applies to diethylene glycol
e) Melting point/freezing point  
-8 °C to –43 °C

f) Initial boiling point and boiling range  
from 100 °C

g) Flash point  
140 °C

h) Evaporation rate  
< 0,01 (Butyl acetate = 1)

i) Flammability  
355 °C  )* 

j) Upper/lower flammability or explosive limits;  
1,7 Vol-%; 75 g/m³  )* 
37,0 Vol-%; 1635 g/m³

k) Vapour pressure  
0,008 hPa / 25 °C  )* 

l) Vapour density  
3,66 – (Air = 1,0)  )* 

m) Relative density  
1,03 g/ml 

n) Solubility(ies)  
completely miscible in water

o) Partition coefficient: n-octanol/water  
log Pow: -2,0  )* 

p) Auto-ignition temperature  
Data not available

q) Decomposition temperature  
372 °C at 1013 hPa  )* 

r) Viscosity  
low viscosity

s) Explosive properties  
the product is not explosive, however, formations of explosive vapor-air mixtures are possible

t) Oxidising properties  
Data not available

9.2. Other informations

Conductivity  
< 5 µS/cm

10. Stability and Reactivity

10.1. Reactivity
See section 10.3

10.2. Chemical stability

Stable under recommended storage conditions

10.3. Possibility of hazardous reactions

Reacts with strong alkalis
Reacts with oxidants

10.4. Conditions to avoid

Storage temperatures higher than 60 °C

10.5. Incompatible materials
See section 10.3

10.6. Hazardous decomposition products

Does not decompose at the intended use
In the event of fire: see section 5

)* All information applies to diethylene glycol
11. Toxicological informations

11.1. Information on toxicological effects

**Acute Toxicity**

The product was not tested on animals.

- **LD<sub>50</sub> oral** - rat - 12.565 mg/kg
- **LD<sub>50</sub> oral** - Human - 1.000 mg/kg

Remarks: Effects due to ingestion may include: Drowsiness, Gastrointestinal disturbance, Liver disorders, Behavioral: Muscle weakness.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

- **LD<sub>50</sub> dermal** - rabbit - 11.890 mg/kg

**Skin corrosion/irritation**

Skin - rabbit

Result: No skin irritation

(OECD Test Guideline 404)

**Serious eye damage/irritation**

Eyes - rabbit

Result: No eye irritation

**Respiratory or skin sensitisation**

Maximisation Test - guinea pig

Result: Did not cause sensitisation on laboratory animals.


**Germ cell mutagenicity**

Data not available

**Carcinogenicity**

IRAC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

Data not available

**Summary of the evaluation of the CMR properties**

Data not available

**Specific target organ toxicity - single exposure**

Data not available

**Specific target organ toxicity - repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

Oral - Kidney

**Aspiration hazard**

Data not available

**Additional information**

Repeated dose toxicity - rat - Oral - No observed adverse effect level - 100 mg/kg

RTECS: ID5950000

Symptoms and signs of poisoning are:

Confusion., Dizziness, Kidney injury may occur., Unconsciousness, Convulsions, Nausea, Headache, Vomiting, Pulmonary edema. Effects may be delayed.

12. Ecological information

12.1. Toxicty

No known ecotoxic effect

*) All information applies to diethylene glycol
12.2. Persistence and degradability
The product has no negative environmental impact. It is tested in accordance with OECD 301E / EEC 84/449 C3 and is considered readily biodegradable. Technically correct releases of minimal concentrations to adapted biological sewage treatment facility of degradation activity of activated sludge is not to be expected.

12.3. Bioaccumulative potential
No potential for bioaccumulation.

12.4. Mobility in soil
Transport and distribution between environmental compartments has not been determined.

12.5. Results of PBT and vPvB assessment
Data not available.

12.6. Other adverse effects
Not known.
WGK Water hazard class 1: slightly hazardous for water
Into ground water, water course or be discharged into drains.
Keep out undiluted or unneutralized into wastewater or drainage.

13. Disposal considerations

13.1. Waste treatment methods
Product
Recommendation: Can adhering to the necessary technical requirements to be burned with household garbage after consulting with the waste disposal facility and the pertinent authorities.

Contaminated packaging
Recommendation: Contaminated packaging should be emptied and can be supplied after being thoroughly cleaned for reuse. Uncleaned packaging must be disposed of like the product.

14. Transport Information

14.1. UN Number
ADR/RID: -    IMDG: -    IATA: -

14.2. UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3. Transport hazard class(es)
ADR/RID: -    IMDG: -    IATA: -

14.4. Packing group
ADR/RID: -    IMDG: -    IATA: -

*) All information applies to diethylene glycol.
14.5. Environmental hazards

ADR/RID: -  IMDG: -  IATA: -

14.6. Special precautions for user

ADR/RID: no  IMDG Marine pollutant: no  IATA: no

14.7. Transport in bulk according to Annex II of Marpol112 and the IBC Code

No transport as bulk according IBC Code

15. Regulatory information

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

<table>
<thead>
<tr>
<th>National provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment restrictions</td>
</tr>
<tr>
<td>Water hazard class</td>
</tr>
<tr>
<td>Volatile organic compounds</td>
</tr>
</tbody>
</table>

15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. Other information

Exposure scenario:
Professional smoke fluid for the production of short-term, artificial fog and show effects in the event industry, theater and film production.
Considering the visibility and the desired effect, the concentration of smoke fluid in the air should be calculated between 25 and max. 80 mg/m³.
In particular, the smoke density must be selected to ensure that exits and emergency exits are always visible in enclosed spaces. The same applies to the lighting of escape routes, their markings, landings, manholes, building edges etc. A visibility of 25 meters (in accordance with the German VStättV; please refer for the definition of the “max. distance to the nearest exit” in national applicable regulations if used outside of Germany) must be complied with.
To avoid anxiety, smoke-sated rooms may never be locked.
The product is to be used properly and as supplied.
Keep away from children and store out of reach.

Further informations:
The above information is believed current state to the best knowledge. They do not claim to be exhaustive. The safety data sheet describes products with regard to requirements for a safe handling and to be understood by the user as a guideline. The information does not have the meaning of guarantees on properties within the meaning of quality descriptions
Steinigke Showtechnic GmbH excludes any liability for damages resulting from handling or contact with these products. For general terms and conditions see the back of our invoice or delivery notes and at www.steinigke.com.

*) All information applies to diethylene glycol