

Product name: Eurolite Smoke fluid "A2D", "B2D", "C2D", "P2D", "E2D"

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

1.1. Product identifier

Trade name: EUROLITE Smoke fluid -A2D- Action smoke fluid
EUROLITE Smoke fluid -B2D- basic
EUROLITE Smoke fluid -C2D- standard
EUROLITE Smoke fluid -P2D- professional
EUROLITE Smoke fluid -E2D- extreme

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 Showtechnik 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: Mr. Schuster
Phone: +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: Mr. Schuster
Phone: +49 931 4061-434
E-Mail: sds@steinigke.de

Emergency information: Giftnotruf Mainz - 24 h Notdienst
Phone: +49 6131 - 19240

2. Hazards identification

2.1. Classification of the mixture

The product is not classified as hazardous under the CLP Regulation.

2.2. Label elements

The product has not to be labeled under the CLP Regulation.

2.3. Other Hazards

None

3. Composition/information on ingredients

3.2. Mixture

Ingredients	Hazard class and category	Concentration
Triethylene glycol		
CAS Nr.: 127-27-6 EG Nr.: 203-953-2	none	< 50 %

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1,2-Propanediol		
CAS Nr.: 57-55-6	none	< 5 %
EG Nr.: 200-338-0		

Hazard statements none

4. First aid measures

4.1. Description of first aid measures

- General notes: When used normally no acute dangers are to be expected.
- Following inhalation: Get medical advice/attention if you feel unwell.
- Following skin contact: Wash with plenty of soap and water.
- Following eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Following ingestion: Get medical advice/attention if you feel unwell.

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

No known hazards and symptoms.

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
- Water (spray jet - do not use full jet)
 - Dry extinguishing agents
 - Carbon dioxide
- Fight larger fires with alcohol-resistant foam or water spray.

5.2. Special hazards arising from the substance or mixture

Carbon monoxide and carbon dioxide

5.3. Advice for firefighters

Wear self-contained breathing apparatus for fire fighting if necessary.

6. Accidental release measures

The instructions given in the section apply to the non-vaporized liquid.

6.1. Personal precautions, protective equipment and emergency procedures

- Risk of slipping due to leakage , spillage or condensed product.
- Keep unprotected persons at a safe distance.
- Ensure adequate ventilation.

6.2. Environmental precautions

- The mixture is weakly water-endangering.
- Avoid further spillage or leakage prevented if this is possible without risk.
- In case greater quantities intrude into waterways, sewage system or soil, inform appropriate authorities.

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6.3. Methods and material for containment and cleaning up

Absorb any spilt liquid with an absorbent (e.g. diatomite, vermiculite, sand) and dispose of according to regulations.

Afterwards ventilate area and wash spill site.

6.4. Reference to other sections

For disposal : see section 13

7. Handling and storage

7.1. Precautions for safe handling

The following instructions apply to the non-vaporized liquid

Store in unbreakable containers.

Do no eat, drink or smoke when using this product.

The following instructions apply to the vaporized liquid

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.

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.

Exposure scenario see section 16

7.2. Conditions for safe storage, including any incompatibilities

The following instructions apply to the non-vaporized liquid

Storage class 12

Store in a well-ventilated place. Keep container tightly closed.

Protect from sunlight.

Store at temperatures not exceeding 40 °C/104 °F. Keep cool.

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.

Exposure scenario see section 16

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8. Exposure controls/personal protection

8.1. Control parameters

CAS-Nr.	112-27-6	Ingredients	Triethylene glycol				
Limit values							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">8 hours</td> <td style="width: 50%; text-align: center;">Short term*</td> </tr> </table>						8 hours	Short term*
8 hours	Short term*						
Country	ppm	mg/m ³	ppm	mg/m ³	Legal basis		
Germany		1000 E		2000 E	Technischen Regeln für Gefahrstoffe TRGS-900 Stand 04.11.2016		
Switzerland		1000 e		2000 e	SUVA: Grenzwerte am Arbeitsplatz 2017		
Remarks							
Germany	<p>"E": Only a part of the total suspended matter present in the working air of an employee is inhaled. It is referred to as a respirable fraction and is measured as a respirable fraction.</p> <p>The substance occurs at room temperature in relevant quantities both as vapor and as aerosol. Therefore, the sum of steam and aerosol must always be assessed.</p> <p>* Short term - Category II Resorptive effectual substances: An exceedance factor of 2 is defined as the basic value (15-minute mean value). Operational monitoring is to be carried out over a 15-minute period by measuring the mean value.</p> <p>A risk of teratogenic effects does not need to be feared if the workplace limit value and the biological limit value (BGW) are observed.</p>						
Switzerland	<p>e - inhalable dust (total dust): is understood as the totality of the particles in the air, which can be inhaled by mouth and nose.</p> <p>A risk of teratogenic effects can not be excluded even if the MAK value is observed.</p>						

CAS-Nr.	57-55-6	Ingredients	1,2-Propanediol				
Limit values							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">8 hours</td> <td style="width: 50%; text-align: center;">Short term*</td> </tr> </table>						8 hours	Short term*
8 hours	Short term*						
Country	ppm	mg/m ³	ppm	mg/m ³	Legal basis		
Ireland	150	470 10			CoP 2016 Code of Practice for the Chemical Agents Regulations		
Lithuania	7				Lietuvos higienos normos HN 23:2011 „Cheminių medžiagų ribiniai dydžiai.		
Norway	25	79			Forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier) 2017		
United Kingdom	150	474 10			EH40/2005 Workplace exposure limits March 2013		
Remarks							
Ireland	The value pair of the first line applies to "total vapour and particulates", the second only for "particulates".						
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8.2. Exposure controls

Handle in accordance with good industrial hygiene and safety practice.

Wash skin thoroughly after handling with plenty of soap and water.

Eye/face protection:	Recommended during refilling. Use by official standards (NIOSH, EN 166) tested and approved equipment.
Hand protection:	Wear gloves when refilling. Suitable gloves are: Natural rubber/Natural latex - NR (0,5 mm) (use non-powdered and allergen free products) Polychloroprene - CR (0,5 mm) Nitrile rubber/Nitrile latex - NBR (0,35 mm) Butyl rubber - Butyl (0,5 mm) Fluoro carbon rubber - FKM (0,4 mm) Polyvinyl chloride - PVC (0,5 mm)
Body Protection:	The protection clothing should be solvent resistant.
Respiratory protection:	not mandatory
Additional information on the design of technical installations:	not mandatory
Components of occupational exposure limits:	not mandatory

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

	Smoke fluid	Triethylene glycol)*
a) Appearance:	Form: liquid Colour: colourless	Form: liquid Colour: colourless
b) Odour:	neutral	odourless
c) Odour threshold:	Data not available	
d) pH	6-8	6,5 ... 7,5 at 20 °C Concentration: 100 g/l
e) Melting point/ freezing point:	-5 °C	-7 °C
f) Initial boiling point and boiling range:	from 100 °C	291 °C
g) Flash point:	101 °C	177 °C closed cup
h) Evaporation rate:	Data not available	
i) Flammability:	Data not available	370 °C Temperature class: T2
j) Upper/lower flammability or explosive limits:	Data not available	l.e.l.: 0,9 Vol.-% 55 g/m ³ u.e.l.: 9,2 Vol.-% 580 g/m ³
k) Vapour pressure:	Data not available	0,003 hPa at 20 °C 0,13 hPa at 50 °C 1,3 hPa at 117 °C
l) Vapour density:	Data not available	1,00
m) Relative density:	1,02 g/ml	1,12 g/ml at 20 °C
n) Solubility(ies):	miscible in water	miscible

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o) Partition coefficient: n-octanol/water	Data not available	
p) Auto-ignition temperature:	Data not available	
q) Decomposition temperature:	Data not available	
r) Viscosity:	low viscosity	V_{dyn} : 49,4 mPa*s at 20 °C Conversion: $V_{kin} = V_{dyn} / \text{Density}$
s) Explosive properties:	Data not available	
t) Oxidising properties:	Data not available	

9.2. Other information

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

Protect from sunlight. Do not expose to temperatures exceeding 40 °C/104 °F.

10.5. Incompatible materials

see section 10.3.

10.6. Hazardous decomposition products

Does not decompose during the intended use.

In the event of fire: see section 5.

11. Toxicological information

11.1. Information on toxicological effects

	Smoke fluid	Triethylene glycol)*
(a) acute toxicity	The product was not tested on animals.	is barely irritating and has very low systemic toxicity
(b) skin corrosion/irritation	not irritating	not irritating
(c) serious eye damage/irritation	not irritating	slight irritation effect, no significant damage
(d) respiratory or skin sensitisation	not sensitising	not sensitising
(e) germ cell mutagenicity	Data not available	no potential is detectable
(f) carcinogenicity	Data not available	no potential is detectable
(g) reproductive toxicity	Data not available	unequivocally demonstrated
(h) STOT-single exposure	Data not available	no potential is detectable
(i) STOT-repeated exposure	Data not available	no potential is detectable
(j) aspiration hazard	Data not available	when vomiting

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12. Ecological information

12.1. Toxicity

No known ecotoxic effect.

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.

With proper releases of low concentrations into adapted biological sewage treatment plants, disturbances of the degradation activity of activated sludge are 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

Water hazard class WGK 1: low hazardous to waters

Do not allow product to reach groundwater, bodies of water or sewage systems.

Do not allow product undiluted or unneutralized into wastewater or drainage systems.

13. Disposal considerations

13.1. Waste treatment methods

Waste code:

Non-hazardous waste according to Waste Catalogue Ordinance.

Product:

Recommendation: Can be incinerated together with household waste in consultation with the waste disposal company and the competent authority, taking into account the necessary technical regulations.

Contaminated packaging:

Recommendation: Contaminated packaging is to be optimally emptied and can be reused after appropriate cleaning. Packaging which can not be cleaned must be disposed of as well as the substance.

14. Transport Information

14.1. UN Number

ADR/COTIF: -- IMDG: -- IATA: --

14.2. UN proper shipping name

ADR/COTIF: Non dangerous goods

IMDG: Non dangerous goods

IATA: Non dangerous goods

14.3. Transport hazard class(es)

ADR/COTIF: -- IMDG: -- IATA: --

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14.4. Packing group

ADR/COTIF: -- IMDG: -- IATA: --

14.5. Environmental hazards

ADR/COTIF: -- IMDG: -- IATA: --

14.6. Special precautions for user

ADR/COTIF: no IMDG: no IATA: no

14.7. Transport in bulk according to Annex II of Marpol 73/78 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

National provisions

Water hazard class WGK 1, low hazardous to waters; (Classification acc. VwVwS , Annex 4)

Volitale organic compounds According to Directive 2004/42/EC does not contain any VOC components.

15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

16. Other information

Triethylene glycol)*

GESTIS substance database: entries derived from material data sheet triethylene glycol.

[Http://gestis.itrust.de/nxt/gateway.dll/gestis_en/000000.xml?f=templates\\$fn=default.htm\\$vid=gestisdeu:sdbdeu\\$3.0](http://gestis.itrust.de/nxt/gateway.dll/gestis_en/000000.xml?f=templates$fn=default.htm$vid=gestisdeu:sdbdeu$3.0)

Exposure szenario:

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.

Futher information:

The present information is currently compiled to the best of our knowledge. It does not claim to be exhaustive. The safety data sheet describes products with regard to requirements for safe handling and should be understood by the user as a guideline. The information provided does not indicate property assurances in the sense 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 as well as under www.steinigke.com.