

Appendix D2 Air Trace Smoke Fluid

Appendix D2-Health and Safety Data

Smoke Simulant Fluid-Air Trace Smoke Fluid

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

Product identifier  
Trade Name: Air Trace Smoke Fluid  
Article Number: Not Available  
Application of substance / preparation: Airflow tracing  
Details of supplier of safety data sheet:  
Concept Engineering Ltd, 7 Woodlands Business Park,  
Maidenhead, Berkshire, SL6 3UA, UK  
Tel: 01628 825 555  
Email: info@conceptsmoke.com

2. Hazards Identification

Not a hazardous substance according to Regulation (EC) no 1272/2008  
This substance is not classified as dangerous according to Directive 67/548/EEC Not generally regarded as hazardous in normal conditions of handling and use.  
This product does not need to be labelled in accordance with EC directives or respective national laws

3. Composition/information on ingredients

CAS	Description	%
57-55-6	USP propane glycol-1,2-diol	≤50.0%
56-81-5	USP glycerol	<10.0%
7732-18-5	Water, distilled, conductivity or of similar purity	≥40.0%

4. First aid measures

- **After Inhalation:** Supply fresh air; consult doctor in case of complaints\* (Refer to section 8- In concentrations associated with visualisation for durations <10min, no respiratory / eye protection required).
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water
- **After swallowing:** If symptoms persist consult doctor

5. Firefighting measures

- **Suitable extinguishing agents:** Use firefighting measures that suit the environment.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Protective equipment:** Mouth respiratory protective device.

6. Accidental release measures

- **Personal precautions protective equipment & emergency procedures:** Mount respiratory protective device.
- **Environmental precautions:** Dilute with plenty of water. Do not allow to enter sewers/surface or ground water
- **Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7. Handling and storage

**Handling:**

- **Precautions for safe handling:** keep receptacles tightly sealed.
- **Information about protection against explosions and fires:** Keep ignition sources away – Do not smoke

**Storage:**

- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs  
Store away from flammable substances
- **Further information about storage conditions:** Keep receptacle tightly sealed

## 8. Exposure controls/personal protection

<b>Exposure Limits:</b>	CAS 57-55-6/56-81-5	10 mg.m <sup>3</sup> 8h TWA Type: OES
<b>Monitoring Method:</b>		As mist
<b>Protective Measures</b>	<b>Respiratory protection</b>	Unlikely to be required in normal use -see below
<b>Hand:</b>		Gloves
<b>Eye:</b>		Goggles
<b>Skin:</b>		Overall and boots
<b>Hygiene Measures:</b>		Always wash thoroughly after handling chemical

The smoke produced by Concepts smoke generators has been rigorously tested to ensure that in normal conditions it is non toxic. Independent health and safety reports (available on request) indicate that dense smoke concentrations can be entered without any serious health risk for short periods of time.

In the concentrations typically required for Air Trace applications, no respiratory protection would be required, although we do recommend in general terms that those suffering from asthma or with a severe respiratory condition should not be subjected to artificial smoke /fog from any device.

## 9. Physical and chemical properties

<ul style="list-style-type: none"> <li>● General Information</li> <li>● Appearance: <ul style="list-style-type: none"> <li>Form: Liquid</li> <li>Color: Transparent</li> <li>Odour: Odourless</li> <li>Odour threshold: Not available</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>● pH-value:</li> </ul>	Not available
<ul style="list-style-type: none"> <li>● Change In condition <ul style="list-style-type: none"> <li>Melting point/Melting range: Not available</li> <li>Freezing point: Not available</li> <li>Boiling point/Boiling range: Not available</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>● Flash point:</li> </ul>	Not available
<ul style="list-style-type: none"> <li>● Flammability (solid gaseous):</li> </ul>	Not available
<ul style="list-style-type: none"> <li>● Auto-ignition temperature:</li> </ul>	Not available
<ul style="list-style-type: none"> <li>● Decomposition temperature:</li> </ul>	Not available
<ul style="list-style-type: none"> <li>● Explosion limits: <ul style="list-style-type: none"> <li>Lower: Not available</li> <li>Upper: Not available</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>● Vapour pressure:</li> </ul>	Not available
<ul style="list-style-type: none"> <li>● Density: <ul style="list-style-type: none"> <li>Relative density: Not available</li> <li>Vapour density: Not available</li> <li>Evaporation rate: Not available</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>● Solubility In / miscibility with water</li> </ul>	Not available
<ul style="list-style-type: none"> <li>● Partition coefficient (n-octanol/water)</li> </ul>	Not available
<ul style="list-style-type: none"> <li>● Viscosity <ul style="list-style-type: none"> <li>Dynamic: Not available</li> <li>Kinematic: Not available</li> </ul> </li> </ul>	

## 10. Stability and reactivity

- **Reactivity:** No decomposition if used according to specification.
- **Chemical stability:** Stable under recommended storage conditions.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11. Toxicological information

### Acute toxicity:

LD/LC50 values that are relevant for classification:

57-55-6 USP propane glycol-1,2-diol		
Oral	LD50	20000 mg/kg (rat)
Dermal	LD50	20800 mg/kg (rabbit)
56-81-5 USP glycerol		
Oral	LD50	4090 mg/kg (mouse)
		12600 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)

### Primary Irritant effect:

- On the skin: Irritating effect possible
- On the eye: Irritating effect possible
- Sensitization: Sensitization possible through skin contact
- Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specification, the product does not have any harmful effects according to our experience and the information provided to us.

### Carcinogenic categories

- IARC (International Agency for Research on Cancer)  
None of the ingredients is listed
- NTP (National Toxicology Program) None of the ingredients is listed

## 12. Ecological information

### Toxicity

- Aquatic toxicity: No further relevant information available
- Persistence and degradability: No further relevant information available
- Bio-accumulative potential: No further relevant information available
- Mobility in soil: No further relevant information available
- General notes: Water hazard class 1 (self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 13. Disposal considerations

### Waste treatment methods

- Recommendation: Smaller quantities can be disposed of with household waste.  
Uncleaned packages:
- Recommendation: Disposal must be made according to official regulations.
- Recommend cleansing agent: Water, if necessary with cleansing agents.

## 14. Transportation information

Non hazardous for shipping / transportation

- UN-Number
- DOT, IMDG, IATA Not applicable
- UN proper shipping name
- DOT, IMDG, IATA Not applicable
- Transport hazard class(es)
- DOT, IMDG, IATA
- Class Not applicable
- Packing Group
- DOT, IMDG, IATA Not applicable
- Environmental hazards:
- Marine pollutant: No
- Special precautions for user Not applicable
- EMS Number: Not applicable Trade name: Concept Air Trace (fog machine for flow visualisation)
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

## 15. Regulatory Information

Supply label details:	CPL
Label name:	Air Trace Smoke Fluid
Symbol:	No risk or safety phrases stipulated
Risk phrases:	No risk or safety phrases stipulated
Safety phrases:	No risk or safety phrases stipulated

Users are advised to consult these regulations for further information. The information contained in this data sheet does not constitute an assessment of workplace risks

## 16. Other Information

Further details may be available upon request from Concept Engineering Ltd

**Legal Disclaimer** The above information is based on the present state of our knowledge of the product at the time of publication. It is given in good faith, no warranty is implied with respect to this information