



# *SAFETY DATA SHEET*

*SmokeCloak  
FL 600 Fluid (V)*

# SmokeCloak FL 600 Fluid (V)

June 2007

## 1. Identification of the substance / preparation and company

Product: SmokeCloak FL 600 Fluid (V)

Synonyms: FL 600 Fluid (V), SmokeCloak liquid, SmokeCloak fluid

Supplied by: Martin Manufacturing (UK) Plc. Tlf.: +44 (0) 1507 604399 Fax: +44 (0) 1507 601 956

Belvoir Way

Fairfield Industrial Estate

Louth - Lincolnshire LN11 0LQ

UK

## 2. Composition / information on ingredients

Contains food grade glycols polyglycols and de-mineralised water.

Contains no substances in Part 1 of the Approved Supply List, or with a maximum exposure limit (MEL) specified in Schedule 1 of COSHH.

Contains monopropylene glycol, for which an occupational exposure standard has been set.

## 3. Hazardous information

No significant hazard to man or environment under normal conditions of handling and use.

The concentration of smoke components is below the OES (Occupational Exposure Standard) under normal operating conditions.

Ingestion: Low toxicity

Eye/skin: Low toxicity

Inhalation: Low concentration of hazardous substances in vapour. Undiluted vapour should not be inhaled.

(Note: The concentration of vapour components in the final product is below the OES under normal operating conditions).

## 4. First aid measures

Exposure route	Symptom	Treatment
Skin contact	Mild irritation	Drench the skin with plenty of water. Remove contaminated clothing and wash before re-use. If large areas of skin are damaged or if irritation persists seek medical attention.
Eye contact	Mild irritation	Skyl huden med masser af vand. Forurenet tøj fjernes og vaskes, før det bruges igen. Hvis store hudområder er skadet, eller irritationen vedvarer, søges lægehjælp
Inhalation	Mild irritation of nose and throat	Remove from exposure, rest and keep warm. In severe cases, or if recovery is not rapid or complete, seek medical attention.
Ingestion	Mild irritation of gastro-intestinal tract	Wash out mouth with water. Do not induce vomiting. If patient is conscious, give water to drink. If patient feels unwell seek medical attention.

## 5. Fire fighting measures

<b>Suitable extinguishes</b>	Alcohol-resistant or all-purpose-type foam. Use carbon dioxide or dry powder for small fires only.
<b>Unsuitable extinguishes</b>	Do not direct a solid stream of water or foam into hot burning pools; as this may cause frothing and increase the intensity of a fire.
<b>Hazardous combustion products</b>	Oxides of carbon including aldehydes.
<b>Special equipment for fire fighting</b>	Self contained breathing apparatus.



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## 6. Accidental release measures

<b>Safety precautions</b>	Wear appropriate PPE (Personal Protection Equipment) when handling - see section 8.
<b>Environmental precautions</b>	Prevent entry into drains and water courses
<b>Clean up procedure</b>	Bund or absorb material with sand, earth or other suitable absorbent material. If possible, transfer to a salvage tank, otherwise absorb residues and place in suitable labelled containers and hold for waste disposal - see section 13.

## 7. Handling & storage

No special requirements or conditions for handling and storage other than normal precautions for the safe handling of chemicals, and an appreciation of information given in this Safety Data Sheet.

<b>Safe handling</b>	Avoid prolonged skin contact. Avoid contact with eyes. Ensure good general ventilation of area. Avoid creating spray. Do not breath undiluted vapour (see section 3 above).
<b>Storage</b>	Store in original closed containers. Store at ambient temperature. Store away from materials listed in section 10.

## 8. Exposure controls and personal protection

No special training is required for handling this preparation other than normal precautions for safe handling of chemicals, and an appreciation of the information given in this data sheet. An assessment of workplace risk will determine risk protection that may be required, this is identified below:

Hand	PVC coated or rubber gloves
Eye	Goggles or face shield
Skin	Overall and boots.
Respiratory	Type approved RPE (Respiratory Protection Equipment) for organic vapours and mists, if required.
Hygiene measures	Always wash thoroughly after handling chemicals.

## 9. Physical and chemical properties

<b>Appearance:</b>	Colourless liquid
<b>Flash point:</b>	>78°C (test flame extinguished at 78°C)
<b>Odour:</b>	Mild
<b>Flammability limits:</b>	2.5 - 15.5 v/v (estimated)
<b>pH:</b>	Neutral
<b>Vapour pressure:</b>	2.54 kPa at 20°C
<b>Boiling point/range:</b>	105.8 - 209.4°C
<b>Relative density:</b>	1.058 at 20°/20°
<b>Melting point/range:</b>	<-20°C
<b>Solubility in water:</b>	Completely miscible

## 10. Stability and reactivity

<b>Stability</b>	Stable and normal conditions.
<b>Known hazardous reaction</b>	Possibility of explosive decomposition if combined with strong acids or bases at elevated temperatures.
<b>Conditions to avoid</b>	Elevated temperatures.
<b>Materials to avoid</b>	Strong acids and bases; strong oxidisers.
<b>Hazardous decomposition products</b>	Oxides of carbon, including aldehydes.



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## 11. Toxicological information

- OES for monopropylene glycol set at 150 ppm (total vapour and particulates) for 8-hour TWA (Time Weighted Average), and 10mg/m<sup>3</sup> (particulates) for 15-minute STEL (Short Term Exposure Limited).
- LD<sub>50</sub> for Monopropylene glycol: 2100 - 33700 mg/kg oral - rat, >10000 mg/kg skin - rabbit.
- Note: This refers to concentrated component fluid.
- May cause slight irritation to skin, eyes and mucous membranes. Large doses may produce adverse effects on liver, kidneys and central nervous system.
- No evidence in development toxicity studies for either embryotoxic or teratogenic effects.

## 12. Ecological information

<b>Mobility</b>	Liquid with low volatility, soluble in water, predicted to have high mobility in soil.
<b>Degradable</b>	The preparation is largely biodegradable: BOD <sub>5</sub> (biochemical Oxygen Demand) = 1.8 gO <sub>2</sub> /g; ThOD = 1.68 gO <sub>2</sub> /g; COD (Chemical Oxygen Demand) = 1.63 gO <sub>2</sub> /g BOD <sub>20</sub> /ThOD = 86%
<b>Accumulation</b>	Low
<b>Short and long term effects</b>	LC <sub>50</sub> fathead minnow = 4600 - 54900 mg/l > EC <sub>50</sub> daphnia magna = 4850 - 34400 mg/l
<b>Environmental effects</b>	Moderate degradation. Material is expected to be readily biodegradable in the environment under both aerobic and anaerobic conditions.
<b>Aquatic toxicity</b>	Very low toxicity to fish: no adverse effect level < 100mg/l. Practically non-toxic to aquatic invertebrates. LC <sub>50</sub> to algae or plants was reported to be >100mg/l in water or > 100mg/kg in soil.

## 13. Betragtninger om bortskaffelse

<b>Substance</b>	Via an authorised waste disposal contractor to an approved waste disposal site, observing all local and national regulations.
<b>Container</b>	As for substance. Used containers must not be cut up or punctured until completely purged of product residues

## 14. Transport information

- No special precautions for transport

## 15. Regulatory information

<b>Supply label details</b>	In accordance with CHIP 2, Regulation 9
<b>Label name</b>	SmokeCloak FL. 600 (V)
<b>Symbol</b>	} No risk or safety phrases stipulated
<b>Risk phrases</b>	
<b>Safety phrases</b>	
<b>EEC Number</b>	

Use of this material may be governed by the following regulations: COSHH, HSWA, MHSW

Users are advised to consult these regulations for further information. The information contained in this data sheet does not constitute an assessment of workplace risk as required by other health and safety legislation.



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## 16. Other information

This material is used for the production of a smoke security vapour in a Smokecloak brand of security device. The concentration of smoke components is below the OES under normal operating conditions. It must not be used for any other purpose, or in any other equipment.

Further details may be available on request from the supplier, whose address and telephone number are given in section 1. Sources of information: Suppliers' safety data sheets for substance used as raw materials in the preparation.

BH 40/97 • NFPA 325M • SDS No 101 August 97 • GH/0312/GS/DL (N.O.H.S)

## 17. 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 the quality of the specification of the product. The user must satisfy himself that the product is entirely suitable for his purpose.

If you have purchased the product for supply to a third party, it is your duty to take all necessary steps to ensure that any person handling and using the product is provided with the information in this sheet. If you are an employer it is your duty to tell your employees and others who may be affected by any hazard described in this sheet and of any precautions that should be taken.

