

# SAFETY DATA SHEET

## AKTAFLO E

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY:

**PRODUCT NAME:** AKTAFLO E  
**PART No.:** LAB007  
**APPLICATIONS:** Laboratory chemical.  
**EMERGENCY TELEPHONES:** 001 281 561 1600 (USA)  
**SUPPLIER:** M-I Drilling Fluids UK Ltd,  
Pocra Quay,  
Footdee,  
Aberdeen. AB11 5DQ  
**TELEPHONE:** 44 (0)1224 - 584336  
**FAX:** 44 (0)1224 - 576119

### 2. COMPOSITION/INFORMATION ON INGREDIENTS:

INGREDIENT NAME:	CAS No.:	CONTENT	HEALTH: RISK:
PROPAN-2-OL	67-63-0	1-5 %	
ALKOXYLATED PHENOL		60-100 %	

### 3. HAZARDS IDENTIFICATION:

Flammable.

### 4. FIRST AID MEASURES:

**INHALATION:** Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

**INGESTION:** Do not induce vomiting unless directed to do so by a physician. Promptly get affected personnel to drink large volumes of water to dilute the swallowed chemical. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention.

**SKIN:** Remove affected person from source of contamination. Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

**EYES:** Promptly wash eyes with plenty of water while lifting the eye lids. Hold eyelids apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

### 5. FIRE FIGHTING MEASURES:

**EXTINGUISHING MEDIA:** Dry chemicals, sand, dolomite etc. Alcohol resistant foam. Powder. Carbon dioxide (CO<sub>2</sub>). Water spray, fog or mist.

**SPECIAL FIRE FIGHTING PROCEDURES:**

Use water to keep fire exposed containers cool and disperse vapours. Keep run-off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Move container from fire area if it can be done without risk. Use special protective clothing. Regular protection may not be safe. NOTE! Use air-supplied respirators to protect against gases/fumes.

**UNUSUAL FIRE & EXPLOSION HAZARDS:**

May explode when heated or when exposed to flames or sparks. May travel considerable distance to source of ignition and flash back. Sealed containers may rupture when heated. Incompatible materials include: strong oxidising agents,

**HAZARDOUS COMBUSTION PRODUCTS:**

Fire or high temperatures create: Oxides of: Carbon. Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

**6. ACCIDENTAL RELEASE MEASURES:****SPILL CLEANUP METHODS:**

Collect with noncombustible absorbent material. Flush with water. Dike for large spills. Clean-up personnel should use respiratory and/or liquid contact protection. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

**7. HANDLING AND STORAGE:****USAGE PRECAUTIONS:**

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Avoid acids, moisture, and combustible materials.

**STORAGE PRECAUTIONS:**

Flammable/combustible - Keep away from oxidizers, heat and flames. Keep in cool, dry, ventilated storage and closed containers. Keep containers tightly closed.

**STORAGE CRITERIA:**

Flammable liquid storage.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:****INGREDIENT NAME:**

PROPAN-2-OL

**CAS No.:**

67-63-0

**STD:**

OES.

**LT EXP. 8 HRS:**

400 ppm

**ST EXP. 15 MIN:**

500 ppm

**INGREDIENT COMMENTS:**

OES = Occupational Exposure Standard.

**PROTECTIVE EQUIPMENT:****PROCESS CONDITIONS:**

Use engineering controls to reduce air contamination to permissible exposure level.

**VENTILATION:**

Provide adequate general and local exhaust ventilation. If possible use this product within a fume cupboard.

**RESPIRATORS:**

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. In an emergency situation wear a full face positive pressure respirator.

**PROTECTIVE GLOVES:**

Use protective gloves made of: Neoprene. Nitrile.

**EYE PROTECTION:**

Wear approved chemical safety goggles where eye exposure is reasonably probable. Use safety goggles and face shield in case of splash risk.

**OTHER PROTECTION:**

Use engineering controls to reduce air contamination to permissible exposure level. Wear appropriate clothing to prevent repeated or prolonged skin contact. Provide eyewash station. Use barrier creams to prevent skin contact.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

<b>APPEARANCE:</b>	Liquid.	
<b>COLOUR:</b>	Colourless.	
<b>ODOUR/TASTE:</b>	Characteristic. Alcohol.	
<b>SOLUBILITY DESCRIPTION:</b>	Miscible with water.	
<b>DENSITY/SPECIFIC GRAVITY (g/ml):</b>	1.03 - 1.06	TEMPERATURE (°C): 20
<b>VAPOUR DENSITY (air=1):</b>	2.1(2 Propanol)	
<b>VAPOUR PRESSURE:</b>	44.00 (2 Propanol)	TEMPERATURE (°C): 25
<b>FLASH POINT (°C):</b>	36	METHOD:
<b>AUTO IGNITION TEMP. (°C):</b>	399(2 Propanol)	
<b>FLAMMABILITY LIMIT - LOWER(%):</b>	2.0 (2 Propanol)	
<b>FLAMMABILITY LIMIT - UPPER(%):</b>	12.7 (2 Propanol)	

**10. STABILITY AND REACTIVITY:**

**STABILITY:** Normally stable. Avoid: Heat, sparks, flames.

**MATERIALS TO AVOID:**

Strong oxidizing agents. Alkali metals. Strong acids.

**HAZARDOUS DECOMP. PRODUCTS:**

Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**11. TOXICOLOGICAL INFORMATION:**

**INHALATION:** High concentrations may cause severe lung damage. Upper respiratory irritation. Vapour may affect central nervous system and cause headache, discomfort, vomiting or intoxication. Drowsiness, dizziness, disorientation, vertigo. Symptoms may include sore throat, coughing, shortness of breath and difficulty breathing.

**INGESTION:** Swallowing concentrated chemical may cause severe internal injury. Drowsiness, dizziness, disorientation, vertigo. Headache. Nausea, vomiting. May cause unconsciousness, blindness and possibly death.

**SKIN:** Prolonged or repeated contact leads to drying of skin. May cause skin irritation/eczema Acts as a defatting agent on skin. May cause cracking of skin, and eczema. May be absorbed through the skin. See ingestion for symptoms of poisoning.

**EYES:** Vapour, spray or dust may cause chronic eye irritation or eye damage. Corneal damage.

**MEDICAL CONSIDERATIONS:**

Convulsive disorders, CNS problems. Liver and/or kidney problems. Pre-existing blood system problems. Skin disorders and allergies.

**12. ECOLOGICAL INFORMATION:****ECOLOGICAL INFORMATION:**

Contact M-F's Environmental Affairs Department for ecological information.

**13. DISPOSAL CONSIDERATIONS:****DISPOSAL METHODS:**

Do not allow runoff to sewer, waterway or ground. Rinse out chemical containers thoroughly before disposal. Chemical residues are classified as special waste. Ensure waste and containers are suitably labelled. Dispose of in accordance with Local Authority requirements.

**WASTE CLASS:** Special waste. Flammable chemical.

**14. TRANSPORT INFORMATION:****LABEL FOR CONVEYANCE:**

<b>GENERAL:</b>	Packing Group III. Limited quantities 5 Litres.
<b>ROAD TRANSPORT:</b>	
<b>UN No. ROAD:</b>	1993
<b>ADR CLASS No.:</b>	Class 3: Flammable liquids.
<b>ADR CLASS:</b>	Packing Group III
<b>HAZARD No. (ADR)</b>	30 Flammable liquid (flash-point between 23°C and 61°C, inclusive) or flammable liquid or solid in the molten state with a flash-point above 61°C, heated to a temperature equal to or above its flash-point, or self heating liquid.
<b>HAZARD No. (ADR)</b>	Special provision 185
<b>PROPER SHIPPING NAME I:</b>	FLAMMABLE LIQUIDS N.O.S. (ISOPROPYL ALCOHOL)
<b>ROAD TRANSPORT NOTES:</b>	EAC - Emergency Action Code 2Y
<b>RAIL TRANSPORT:</b>	
<b>RID CLASS No.:</b>	Class 3: Flammable liquids
<b>SEA TRANSPORT:</b>	
<b>UN No. SEA:</b>	1993
<b>IMDG CLASS:</b>	3.3 : Flammable liquids
<b>IMDG PACK GR.:</b>	Packing Group III
<b>EmS No.:</b>	3-07
<b>MFAG TABLE No.:</b>	Refer to section 4.2 of the MFAG
<b>MARINE POLLUTANT:</b>	No.
<b>AIR TRANSPORT:</b>	
<b>UN No., AIR:</b>	1993
<b>ICAO CLASS:</b>	Class 3: Flammable liquids
<b>AIR PACK GR.:</b>	Packing Group III
<b>AIR TRANSPORT NOTES:</b>	Pkg Inst G, Y309 max/package 10L, Pkg Inst I 309, max/pkg 60L, Pkg Inst K 310 max/pkg 220L.

**15. REGULATORY INFORMATION:****LABEL FOR SUPPLY:**

**RISK PHRASES:** R-10 Flammable.

**SAFETY PHRASES:** S-16 Keep away from sources of ignition - No Smoking.  
S-51 Use only in well ventilated areas.  
S-24/25 Avoid contact with skin and eyes.

**UK REGULATORY REFERENCES:** Classification, Packaging and Labelling Regulations 1984. Highly Flammable Liquid Regulations 1972. Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations 1988.

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## 16. OTHER INFORMATION:

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**USER NOTES:** HMIS Health - 2 HMIS Flammability - 3 HMIS Reactivity - 0

**INFORMATION SOURCES:** Dangerous Properties of Industrial Chemicals, 6.edition, N.Sax, 1984. OSHA Air Contaminants - Permissible Exposure Limits (Title 29). Handbook of Toxic and Hazardous Chemicals and Carcinogens, Sittig, 1985. Hazardous Materials, Emergency Response Guidebook, DOT-P 5800.3, 1984. Material Safety Data Sheet, Misc. manufacturers. Chemical Hazards of the Workplace, Proctor & Hughes, Lippincott, 1978 Threshold Limit Values and Biological Exposure Indices for 1985-86. Sigma-Aldrich Library of Chemical Safety Data. Edition 2, 1988. Chemical Safety Data Guide. Bureau of National Affairs, 1985.

**ISSUED BY:** Dr. Kirsty Walker

**REVISION DATE:** 16-7-99

**REV. No./REPL. SDS GENERATED:** 1

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