

SAFETY DATA SHEET

PIPE-LAX

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME: PIPE-LAX
PART No.: EH-00012
APPLICATIONS: Stuck Pipe Additive
SUPPLIER: M-I Drilling Fluids UK Ltd,
 Pocra Quay,
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 Aberdeen, AB11 5DQ
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EMERGENCY TELEPHONES: 001 281 561 1600 (USA)

2. COMPOSITION/INFORMATION ON INGREDIENTS

| NAME | EINECS Nr.: | CLASSIFICATION | CONTENT |
|---|-------------|----------------------------|----------|
| CAS No.: BUTANOL 71-36-3 | 200-751-6 | Xn R-10, 22, 37/38, 41, 67 | 5-10 % |
| NAPHTHALENE 91-20-3 | 202-049-5 | Xn ,N R-22, 50/53 | 0-1 % |
| FUEL-OIL NO 2; GASOIL - UNSPECIFIED 68476-30-2 | 270-671-4 | Xn R-40 Carc3 | 60-100 % |

The Full Text for all R-Phrases are Displayed in Section 18

COMPOSITION COMMENTS: This product is classified as harmful and flammable in accordance with the EU Directives.

3. HAZARDS IDENTIFICATION

Flammable. Irritating to eyes. Limited evidence of a carcinogenic effect. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Carcinogen Category 3.

4. FIRST AID MEASURES

INHALATION: Remove victim immediately from source of exposure. If respiratory problems, artificial

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| INGESTION: | respiration/oxygen. Get medical attention if any discomfort continues. DO NOT INDUCE VOMITING! Drink a few glasses of water or milk. Do not give victim anything to drink if he is unconscious. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention immediately! |
| SKIN: | Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention if any discomfort continues. |
| EYES: | Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing. |

5. FIRE FIGHTING MEASURES

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| EXTINGUISHING MEDIA: | Water fog. Powder, foam or CO2. |
| SPECIAL FIRE FIGHTING PROCEDURES: | NOTE! Use air-supplied respirators to protect against gases/fumes. Use water SPRAY only to cool containers! Do not put water on leaked material. Avoid water in straight hose stream; will scatter and spread fire. |
| UNUSUAL FIRE & EXPLOSION HAZARDS: | May form flammable vapours which can accumulate in confined spaces. Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back. |
| HAZARDOUS COMBUSTION PRODUCTS: | Fire or high temperatures create: Toxic gases/vapors/fumes of: Oxides of: Carbon, Nitrogen. |

6. ACCIDENTAL RELEASE MEASURES

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| PERSONAL PRECAUTION IN SPILL: | Wear proper personal protective equipment (see MSDS Section 8). |
| SPILL CLEANUP METHODS: | Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Provide ventilation and confine spill. Do not allow runoff to sewer. Runoff or release to sewer, waterway or ground is forbidden. Absorb with inert, damp, noncombustible material, then flush area with water. Collect and reclaim or dispose in sealed containers in licensed waste. Do not let washing down water contaminate ponds or waterways. |

7. HANDLING AND STORAGE

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| USAGE PRECAUTIONS: | Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Keep away from heat, sparks and open flame. |
| STORAGE PRECAUTIONS: | Keep in cool, dry, ventilated storage and closed containers. Keep in original container. Keep away from heat, sparks and open flame. |
| STORAGE CRITERIA: | Flammable liquid storage. |

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

| INGREDIENT NAME: | CAS No.: | STD | LT EXP 8 Hrs | ST EXP 15 Min |
|------------------|----------|-----|--------------------------------|---------------|
| BUTANOL | 71-36-3 | OES | Collect and reclaim or dispose | 60 ppm(Sk) |
| NAPHTHALENE | 91-20-3 | OES | 10 ppm | 15 ppm |

PROTECTIVE EQUIPMENT:



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| PROCESS CONDITIONS: | Use engineering controls to reduce air contamination to permissible exposure level. |
| VENTILATION: | Provide ventilation at floor level and at normal height. |
| RESPIRATORS: | Use chemical cartridge protection with appropriate cartridge. Gas cartridge (organic substances). |
| PROTECTIVE GLOVES: | Use gloves with long sleeves. Protective gloves must be used if there is a risk of direct contact or splash. For exposure of 4 to 8 hours use gloves made of: Nitrile. Neoprene. |
| EYE PROTECTION: | Wear approved chemical safety goggles where eye exposure is reasonably probable. |
| OTHER PROTECTION: | Provide eyewash station and safety shower. Wear rubber apron. Wear rubber footwear. Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. |

9. PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE: | Liquid. | | |
| COLOUR: | Black. | | |
| ODOUR/TASTE: | Hydrocarbon. | | |
| DENSITY/SPECIFIC GRAVITY (g/ml): | 0.9 | Temperature (°C): | 20 |
| pH-VALUE, DILUTED SOLUTION: | 5.6 - 6.6 | Concentration %M: | 1 |
| VISCOSITY (Interval): | 10 cSt | Temperature (°C): | 40 |
| SOLUBILITY DESCRIPTION: | Slightly soluble in water. | | |
| FLASH POINT (°C): | 38 | Method: | PM Closed cup. |

10. STABILITY AND REACTIVITY

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| STABILITY: | Normally stable. |
| CONDITIONS TO AVOID: | Avoid heat, flames and other sources of ignition. |
| MATERIALS TO AVOID: | Strong oxidizing agents. |
| HAZARDOUS DECOMP. PRODUCTS: | Oxides of: Carbon. Nitrogen. |

11. TOXICOLOGICAL INFORMATION

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| INHALATION: | Harmful: possible risk of irreversible effects through inhalation. Vapour may affect central nervous system and cause headache, discomfort, vomiting or intoxication. |
| INGESTION: | Harmful: possible risk of irreversible effects if swallowed. May cause gastric distress, nausea and vomiting if ingested. |
| SKIN: | Harmful: possible risk of irreversible effects in contact with skin. Prolonged or repeated exposure may cause severe irritation. |

EYES: Irritation of eyes and mucous membranes.
OTHER HEALTH EFFECTS: Carcinogen Category 3.

12. ECOLOGICAL INFORMATION

MOBILITY: Partly soluble in water, portion will float on water.
BIO ACCUMULATION: Has the potential to bioaccumulate
DEGRADABILITY: Biodegrades.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: This material and its container must be disposed of as hazardous waste. Incinerate in suitable combustion chamber. Environmental manager must be informed of all major spillages. Confirm disposal procedures with environmental engineer and local regulations.

14. TRANSPORT INFORMATION

LABEL FOR CONVEYANCE:



UN No. ROAD: 1993
UK ROAD PACK GR.: III
PROPER SHIPPING NAME I: Flammable liquid, n.o.s., (contains n-butyl alcohol, fuel oil) Class 3, UN1993, PG III
UN No. SEA: 1993
IMDG CLASS: 3
EmS No.: 3-07
UN No., AIR: 1993
ICAO CLASS: 3
AIR PACK GR.: III

15. REGULATORY INFORMATION

LABEL FOR SUPPLY:



RISK PHRASES: R-10 Flammable.
R-36 Irritating to eyes.
R-40 Limited evidence of a carcinogenic effect.
R-52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES: S-25 Avoid contact with eyes.
S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S-36/37 Wear suitable protective clothing and gloves.
S-51 Use only in well-ventilated areas.
S-60 This material and its container must be disposed of as hazardous waste.

UK REGULATORY REFERENCES: The Control of Substances Hazardous to Health Regulations Chemicals (Hazard Information & Packaging) Regulations.

GUIDANCE NOTES: Occupational Exposure Limits EH40.

16. OTHER INFORMATION

USER NOTES: HMIS Health - 2 HMIS Flammability - 2 HMIS Physical Hazard - 0 J - Splash Goggles, Gloves, Synthetic Apron, Dust and Vapor Respirator.

INFORMATION SOURCES: Material Safety Data Sheet, Misc. manufacturers. Sax's Dangerous Properties of Industrial Materials, 9th ed., Lewis, R.J. Sr., (ed.), VNR, New York, New York, (1997).

ISSUED BY: Sarah Glover

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R-PHRASES (Full Text): R-10 Flammable. R-41 Risk of serious damage to eyes. R-37/38 Irritating to respiratory system and skin. R-22 Harmful if swallowed. R-67 Vapours may cause drowsiness and dizziness. R-50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R-40 Limited evidence of a carcinogenic effect.

DISCLAIMER: MSDS furnished independent of product sale. While every effort has been made to accurately describe this product, some of the data are obtained from sources beyond our direct supervision. We cannot make any assertions as to its reliability or completeness; therefore, user may rely on it only at user's risk. We have made no effort to censor or conceal deleterious aspects of this product. Since we cannot anticipate or control the conditions under which this information and product may be used, we make no guarantee that the precautions we have suggested will be adequate for all individuals and/or situations. It is the obligation of each user of this product to comply with the requirements of all applicable laws regarding use and disposal of this product. Additional information will be furnished upon request to assist the user; however, no warranty, either expressed or implied, nor liability of any nature with respect to this product or to the data herein is made or incurred hereunder.

2003-11-09