

## ABS 40 Base LV

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	ABS 40 Base LV
<b>Other Means of Identification</b>	Aliphatic Based Non-Aqueous Drilling Fluid
<b>Recommended Use</b>	Drilling Fluid.
<b>Manufacturer / Supplier</b>	AES Drilling Fluids, LLC, 11767 Katy Freeway, Suite 230, Houston, TX, 77079, Sales & Information, 281-556-5628
<b>Emergency Phone No.</b>	CHEMTREC, 1-800-424-9300, 24-hour Emergency
<b>Date of Preparation</b>	May 27, 2015

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquid - Category 4; Acute toxicity (Oral) - Category 5; Acute toxicity (Dermal) - Category 5; Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2B; Aspiration hazard - Category 2

#### GHS Label Elements



Signal Word:

Warning

Hazard Statement(s):

H227	Combustible liquid.
H305	May be harmful if swallowed and enters airways.
H315	Causes skin irritation.
H320	Causes eye irritation.

Precautionary Statement(s):

Prevention:

P210	Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands and skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/eye protection/face protection.

Response:

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE/doctor/
P302 + P352	IF ON SKIN: Wash with plenty of water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Storage:

P403 + P235	Store in a well-ventilated place. Keep cool.
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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Distillates (petroleum), hydrotreated light	64742-47-8	100	

#### Notes

P.A.H. and B.T.E.X. are below reporting limits by test methods S.W. 8270 and S.W. 8260 respectively.

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor if you feel unwell or are concerned.

##### Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation occurs get medical advice/attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

##### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

##### Ingestion

Rinse mouth with water. Do not induce vomiting without medical advice. If vomiting occurs, have victim lean forward to reduce the risk of aspiration. Immediately call a Poison Centre or doctor.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Suitable Extinguishing Media

Carbon Dioxide, Foam, Dry chemical. Water spray or fog, do not use a direct stream as this may spread the fire.

#### Specific Hazards Arising from the Chemical

Closed containers may rupture violently when heated releasing contents.

Oxides of carbon.

#### Special Protective Equipment and Precautions for Fire-fighters

Use water spray to cool containers/tanks.

When fighting chemical fires, emergency responders should wear NIOSH approved self contained breathing apparatus and appropriate protective clothing.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment, and Emergency Procedures

Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

#### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. Prevent product from entering drains, soil, ditches, sewers, waterways and/or groundwater.

#### Methods and Materials for Containment and Cleaning Up

Eliminate all ignition sources. Small spills or leaks: do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Contain and soak up spill using noncombustible material such as vermiculite, earth or sand. Place contaminated vermiculite, earth or sand into suitable, covered, labelled containers for disposal. Clean up residual with absorbent material, place in appropriate containers and flush with water. Store recovered product or absorbent material in suitable containers for disposal according to local regulations.

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Contact EH&S regarding spill as spills of certain products and certain quantities may require reporting to various authorities.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe in this product. Do not get in eyes, on skin or on clothing. Only use where there is adequate ventilation. Avoid generating vapours or mists. Keep away from excessive heat, oxidizing agents, and ignition sources. Do not eat, drink or smoke in areas where product is handled. Employees should wash hands after working with product and before going on breaks outside of the work area. Wear personal protective equipment to avoid direct contact with this chemical. See Section 8 for appropriate Personal Protective Equipment (PPE).

### Conditions for Safe Storage

Store in an area that is: well-ventilated, cool, dry. Separate from incompatible materials away from open flames, excessive heat or sources of ignition. Keep containers tightly closed when not in use.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL		AIHA® WEEL™	
	TWA	STEL [C]	TWA	Ceiling	8-hr TWA	Short-term TWA [C]
Distillates (petroleum), hydrotreated light	5 mg/m3	Not established	5 mg/m3	Not established	Not established	Not established

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. STEL = Short-term Exposure Limit. C = Ceiling limit. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. AIHA® = AIHA® Guideline Foundation. WEEL™ = Workplace Environmental Exposure Limit.

OEL values are for Oil Mist. There is no established TLV or OEL's for petroleum distillates.

### Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. While working with the product an eyewash and safety shower should be within acceptable distance to the work area.

### Individual Protection Measures

#### Eye/Face Protection

Safety glasses or goggles. Use chemical goggles or a face shield if product could be splashed.

#### Skin Protection

Wear gloves with appropriate chemical resistance, see manufacturers specifications for suitability. Wear long sleeves, long pants and appropriate footwear while working with product.

#### Respiratory Protection

If conditions exist above the OEL wear a NIOSH approved respirator with an appropriate cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Colourless liquid.
Odour	Faint
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	370 - 470 °F (188 - 243 °C)
Flash Point	155 °F (68 °C)
Evaporation Rate	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)

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<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	0.82
<b>Solubility</b>	Practically insoluble in water
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Other Information</b>	
<b>Physical State</b>	Liquid

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

### Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources.

### Incompatible Materials

Strong Oxidizing Agents. Strong reducing agents (e.g. hydrides).

### Hazardous Decomposition Products

Carbon oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Distillates (petroleum), hydrotreated light	Not available	> 5000 mg/kg (rat)	> 2000 mg/kg (rabbit)

### Skin Corrosion/Irritation

May cause mild skin irritation. Symptoms may include redness and burning of the skin. May aggravate dermatitis.

### Serious Eye Damage/Irritation

May cause moderate eye irritation. Symptoms can include: redness, swelling, a burning sensation and blurred vision.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

May cause irritation of the respiratory tract.

#### Ingestion

May cause irritation of the mouth, throat and stomach.

### Aspiration Hazard

Liquid may be aspirated into the lungs during ingestion or vomiting resulting in lung injury.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

Prolonged skin contact may aggravate existing skin conditions such as dermatitis.

### Respiratory and/or Skin Sensitization

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Not known to be a skin sensitizer. Not known to be a respiratory sensitizer.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Distillates (petroleum), hydrotreated light	Group 3	A3	Not Listed	Not Listed

May cause cancer based on animal studies.

#### Key to Abbreviations

IARC = International Agency for Research on Cancer. Group 3 = Not classifiable as to its carcinogenicity to humans. ACGIH® = American Conference of Governmental Industrial Hygienists. A3 = Animal carcinogen. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration.

### Reproductive Toxicity

#### Development of Offspring

No information was located.

#### Sexual Function and Fertility

No information was located.

#### Effects on or via Lactation

No information was located.

### Germ Cell Mutagenicity

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

Do not allow product to contaminate domestic or irrigation water supplies, lakes, streams, ponds or rivers.

### Toxicity

No information was located.

#### Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Distillates (petroleum), hydrotreated light	2.9 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour)	Not available	Not available	Not available

### Persistence and Degradability

No information was located.

### Bioaccumulative Potential

No information was located.

### Mobility in Soil

No information was located.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

Dispose of in accordance with all local, state and federal regulations. Not classified as RCRA Hazardous. RCRA WASTE NUMBER: Not Applicable.

## SECTION 14. TRANSPORT INFORMATION

Not regulated under US DOT Regulations.

**Other Information** This product meets the 49 CFR 173.120 (b)(3) exemption via ASTM 4206 for United States

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## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or exempt from the TSCA.

##### Additional USA Regulatory Lists

CERCLA: Product does not contain any chemicals subject to the reporting requirement of CERCLA.

SARA Title III - Section 302: No listed components.

SARA Title III - Section 311/312: Fire Hazard Immediate Health Hazard

SARA Title III - Section 313: No chemicals are reportable under Section 313.

## SECTION 16. OTHER INFORMATION

**NFPA Rating**                      **Health - 1**    **Flammability - 2**                      **Instability - 0**

**SDS Prepared By**                      AES Drilling Fluids

**Phone No.**                                      281-556-5628

**Date of Preparation**                      May 27, 2015

**Disclaimer**                                      Do not handle or use until precautions on MSDS are read and understood. The information on this form is furnished solely for the purpose of enabling those who transport, handle or use our products to ensure the safety and health of their employees and to comply with various laws and regulations (federal, state and local). We believe the statements, technical information and recommendations contained herein are reliable but, they are given without warranty or guarantee of any kind, express or implied and we assume no responsibility for any loss, damage, direct or consequential, arising out of their use.