

AES WASH

SECTION 1. IDENTIFICATION

Product Identifier	AES WASH
Other Means of Identification	Surfactant
Recommended Use	Drilling Fluid Additive.
Manufacturer / Supplier	AES Drilling Fluids, LLC, 11767 Katy Freeway, Suite 230, Houston, TX, 77079, Sales & Information, 281-556-5628
Emergency Phone No.	CHEMTREC, 1-800-424-9300, 24-hour Emergency
Date of Preparation	April 22, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 4; Skin corrosion/irritation - Category 3; Serious eye damage/eye irritation - Category 1

GHS Label Elements



Signal Word:

Danger

Hazard Statement(s):

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H316 Causes mild skin irritation.
- H318 Causes serious eye damage.

Precautionary Statement(s):

Prevention:

- P264 Wash hands and skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- 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.
- P315 Get immediate medical advice/attention.
- P304 + P312 IF INHALED: Call a POISON CENTRE/doctor if you feel unwell.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Surfactant Blend	9016-45-9	15-20	
Dipropylene glycol (mixed isomers)	25265-71-8	1-5	
Trade Secret	CBI*	1-5	

Notes

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

CBI = Confidential Business Information.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Call a Poison Centre or doctor if you feel unwell or are concerned.

Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. Seek medical advice/attention.

Eye Contact

Flush eyes thoroughly with lukewarm water for 15 minutes. Seek medical advice/attention.

Ingestion

Rinse mouth with water. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. 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

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Closed containers may rupture violently when heated releasing contents.

Not known to generate any hazardous decomposition products in a fire.

Special Protective Equipment and Precautions for Fire-fighters

Use water spray to cool containers/tanks. No special precautions are necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Isolate the hazard area. 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. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Prevent product from entering drains, soil, ditches, sewers, waterways and/or groundwater.

Product Identifier: AES WASH

Date of Preparation: April 22, 2015

Page 02 of 06

Methods and Materials for Containment and Cleaning Up

Eliminate all ignition sources. Dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Store recovered product or absorbent material in suitable containers for disposal according to local regulations.

Other Information

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

Avoid breathing in this product. Do not get in eyes, on skin or on clothing. 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. Avoid generating vapours or mists. Keep away from heat and open flames. Keep containers tightly closed when not in use or empty. See Section 8 for appropriate Personal Protective Equipment (PPE).

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated. Away from open flames, excessive heat or sources of ignition. Separate from incompatible materials 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]
Dipropylene glycol (mixed isomers)	Not established		Not established		Not established	
Surfactant Blend	Not established		Not established		Not established	
Trade Secret	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.

Appropriate Engineering Controls

General ventilation is usually adequate. 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 with side shields are recommended to prevent eye contact. Wear chemical safety goggles if the 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. If a splashing hazard exists wear chemical protective clothing e.g. gloves that extend up arms, aprons, boots.

Respiratory Protection

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Light amber.

Product Identifier: AES WASH

Date of Preparation: April 22, 2015

Odour	Odourless
Odour Threshold	Not available
pH	7
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	Not available
Evaporation Rate	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.025
Solubility	Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Other Information	
Physical State	Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Stable under normal conditions.

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.

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)
Dipropylene glycol (mixed isomers)	Not available	14850 mg/kg (rat)	> 20000 mg/kg
Surfactant Blend	Not available	2.5 mg/kg (rat)	2.8 mg/kg (rabbit)
Trade Secret	Not available	Not available	Not available

Skin Corrosion/Irritation

May cause skin irritation.

Serious Eye Damage/Irritation

Product Identifier: AES WASH
Date of Preparation: April 22, 2015

May cause serious eye irritation or corneal injury.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause irritation of the respiratory tract.

Ingestion

May cause. irritation of the gastrointestinal tract.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Prolonged skin contact may cause defatting of the skin resulting in irritation and conditions such as dermatitis.

Respiratory and/or Skin Sensitization

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

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Dipropylene glycol (mixed isomers)	Not Listed	Not Listed	Not Listed	Not Listed
Surfactant Blend	Not Listed	Not Listed	Not Listed	Not Listed
Trade Secret	Not Listed	Not Listed	Not Listed	Not Listed

No information was located.

Key to Abbreviations

IARC = International Agency for Research on Cancer. ACGIH® = American Conference of Governmental Industrial Hygienists. 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.

Interactive Effects

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
Dipropylene glycol (mixed isomers)	Not available	Not available	Not available	Not available
Surfactant Blend	9.0 mg/L (Daphnia magna (water flea); fresh water)	14.0 mg/L (Daphnia magna (water flea); fresh water)	Not available	Not available
Trade Secret	Not available	Not available	Not available	Not available

Product Identifier: AES WASH

Date of Preparation: April 22, 2015

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.

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 are exempt from TSCA Inventory requirements under 40 CFR 720.

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: Immediate Health Hazard

SARA Title III - Section 313: None.

SECTION 16. OTHER INFORMATION

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

SDS Prepared By AES Drilling Fluids

Phone No. 281-556-5628

Date of Preparation April 22, 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.

Product Identifier: AES WASH

Date of Preparation: April 22, 2015

Page 06 of 06