

AES VIS RM

SECTION 1. IDENTIFICATION

Product Identifier AES VIS RM
Other Means of Dimmer / Trimmer

Identification

Recommended Use Drilling Fluid Additive.

Manufacturer / AES Drilling Fluids, LLC, 11767 Katy Freeway, Suite 230, Houston, TX, 77079, Sales &

Supplier Information, 281-556-5628

Emergency Phone No. CHEMTREC, 1-800-424-9300, 24-hour Emergency

Date of Preparation June 23, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin sensitization - Category 1; Aspiration hazard - Category 2

GHS Label Elements





Signal Word: Warning

Hazard Statement(s):

H305 May be harmful if swallowed and enters airways.

H317 May cause an allergic skin reaction.

Precautionary Statement(s):

Prevention:

P261 Avoid breathing vapours, mist, spray.

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.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P333 + P313 If skin irritation or rash 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.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Contains no hazardous ingredients. Mixture:

| Chemical Name | CAS No. | % | Other Identifiers |
|----------------------------------|---------|--------------|-------------------|
| Mixture of Fatty acids, tall oil | CBI* | Trade Secret | |
| Trade Secret | CBI* | Trade Secret | |

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 contaminant or move to fresh air. Get medical advice/attention if irritation develops. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation or a rash occurs, get medical advice/attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Seek medical advice/attention.

Ingestion

Immediately call a Poison Centre or doctor. Rinse mouth with water. Do not induce vomiting. If vomiting occurs, have victim lean forward to reduce the risk of aspiration.

Most Important Symptoms and Effects, Acute and Delayed

May be drawn into the lungs if swallowed or vomited, causing severe lung damage.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water, Carbon Dioxide, Foam, Dry chemical.

Specific Hazards Arising from the Chemical

Product can ignite if strongly heated and exposed to open flames. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: 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

Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment. 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.

Methods and Materials for Containment and Cleaning Up

Eliminate all ignition sources. Dike spilled product to prevent runoff. Do not use absorbents. Contain spill using

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noncombustible material such as vermiculite, earth or sand. Place used absorbent into suitable, covered, labelled containers for disposal. 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

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Do not ingest product. 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 containers tightly closed when not in use or empty. Keep away from heat and open flames. 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. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| | ACGIH | ACGIH® TLV® | | OSHA PEL | | AIHA® WEEL™ | |
|----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|--|
| Chemical Name | TWA | STEL [C] | TWA | Ceiling | 8-hr TWA | Short-term TWA [C] | |
| Mixture of Fatty acids, tall oil | Not established | | Not established | | Not established | | |
| Trade Secret | 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. $WEEL^{TM}$ = Workplace Environmental Exposure Limit.

TLV and PEL'S are for Oil Mist.

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. A suitable eyewash station should be within acceptable distance to the work area.

Individual Protection Measures

Eve/Face Protection

Wear safety glasses and if contact is possible wear chemical safety goggles.

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 respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Amber liquid.

Odour Faint

Odour Threshold Not available

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pH Not available

Melting Point/Freezing Point Not available (melting); Not available (freezing)

0.89

Initial Boiling Point/RangeNot availableFlash Point> 230 °F (110 °C)Evaporation RateNot available

Upper/Lower Flammability or

Explosive Limit

Not available (upper); Not available (lower)

Vapour Pressure Not available
Vapour Density (air = 1) Not available

Solubility Insoluble in water
Partition Coefficient, Not available

n-Octanol/Water (Log Kow)

Relative Density (water = 1)

Auto-ignition TemperatureNot availableDecomposition TemperatureNot available

Other Information

Physical State Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

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 (e.g. perchloric acid).

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) |
|----------------------------------|---------------|---------------------|-----------------------|
| Mixture of Fatty acids, tall oil | Not available | > 10000 mg/kg (rat) | Not available |
| Trade Secret | Not available | > 5000 mg/kg (rat) | > 2000 mg/kg (rabbit) |

Skin Corrosion/Irritation

May cause skin irritation. Symptoms may include drying and cracking of the skin (dermatitis).

Serious Eye Damage/Irritation

May cause eye irritation. Symptoms include pain, redness and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause irritation of the mucous membranes and upper respiratory tract. Symptoms may include headache.

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nausea, dizziness, drowsiness and confusion. Depression of the central nervous system.

Skin Absorption

No information was located.

Ingestion

May cause irritation of the mouth, throat and stomach. May cause. nausea, vomiting, diarrhea, depression of the central nervous system.

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

Respiratory and/or Skin Sensitization

May cause an allergic skin reaction.

Not known to be a respiratory sensitizer.

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP | OSHA |
|----------------------------------|------------|------------|------------|------------|
| Mixture of Fatty acids, tall oil | Not Listed | Not Listed | Not Listed | Not Listed |
| Trade Secret | Group 3 | A3 | Not Listed | Not Listed |

Not known to cause cancer.

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 |
|----------------------------------|--|----------------|-------------------------|---------------|
| Mixture of Fatty acids, tall oil | Not available | Not available | Not available | Not available |
| Trade Secret | 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

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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 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: Immediate Health Hazard

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

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 1 Flammability - 1 Instability - 0

SDS Prepared By AES Drilling Fluids Phone No. 281-556-5628

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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 quarantee of any kind, express or implied and we assume no responsibility for any loss,

damage, direct or consequential, arising out of their use.

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