

Duratec

SECTION 1. IDENTIFICATION

Product Identifier	Duratec
Other Means of Identification	Drilling fluid additive
Recommended Use	Fluid Loss Control.
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	February 27, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2B; Carcinogenicity - Category 1A; Specific target organ toxicity (repeated exposure) - Category 2

GHS Label Elements



Signal Word:

Warning

Hazard Statement(s):

H320 Causes eye irritation.

H315 Causes skin irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H350 May cause cancer.

Precautionary Statement(s):

Prevention:

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/eye protection/face protection.

P271 Use only outdoors or in a well-ventilated area.

Response:

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.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

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

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.

Product Identifier: Duratec

Date of Preparation: February 27, 2015

Page 01 of 06

Other Hazards

POTENTIAL HEALTH EFFECTS: EYE: Dust in eye may result in mechanical irritation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains no hazardous ingredients. Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Diatomaceous earth, uncalcined	61790-53-2	11-14	
Silica, quartz	14808-60-7	<1	
Trade Secret	CBI*	Confidential	

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 you feel unwell or are concerned.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If irritation persists, get medical advice/attention.

Eye Contact

Flush eyes thoroughly with lukewarm water for 15 minutes. If eye irritation persists, get medical advice/attention.

Ingestion

Rinse mouth with water. Keep respiratory tract clear. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell or are concerned.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water, Dry chemical, Carbon Dioxide, Foam. Not combustible. Use extinguishing agent suitable for surrounding fire.

Specific Hazards Arising from the Chemical

This product presents no unusual hazards in a fire situation.

The nature of decomposition products is not known and will be influenced by other products/materials involved in the fire.

Special Protective Equipment and Precautions for Fire-fighters

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

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.

Methods and Materials for Containment and Cleaning Up

Eliminate all ignition sources. Vacuum or sweep product up, try to minimize dust build-up. Containerize for solid waste disposal. Dispose of according to local, state and federal regulations.

Product Identifier: Duratec

Date of Preparation: February 27, 2015

Page 02 of 06

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

See Section 8 for appropriate Personal Protective Equipment (PPE). Avoid creating excessive dust while handling the product. Ensure adequate ventilation.

Conditions for Safe Storage

STORAGE: Keep in closed containers in cool, dry, well ventilated area.

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]
Diatomaceous earth, uncalcined	0.025 mg/m3 A2		0.1 mg/m3		Not established	
Silica, quartz	0.025 mg/m3 A2		0.1 mg/m3		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. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. AIHA® = AIHA® Guideline Foundation. WEEL™ = Workplace Environmental Exposure Limit.

Appropriate Engineering Controls

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

Individual Protection Measures

Eye/Face Protection

Safety glasses or goggles. Use goggles or face shield when there is risk of eye contact or visible dust produced.

Skin Protection

Wear gloves and apron if exposure is expected. Wear long sleeves, long pants and appropriate footwear while working with product.

Respiratory Protection

If conditions of use promote large amounts of dust to gather in the work area, wear NIOSH approved dust mask or respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	White - tan powder.
Odour	Faint
pH	Not applicable
Melting Point/Freezing Point	Not available (melting); Not applicable (freezing)
Initial Boiling Point/Range	Not applicable
Flash Point	Not available
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not applicable

Product Identifier: Duratec

Date of Preparation: February 27, 2015

Page 03 of 06

Relative Density (water = 1)	1.03
Solubility	Insoluble in water
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Other Information	
Physical State	Solid

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

Strong oxidizers.

Incompatible Materials

None known.

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Diatomaceous earth, uncalcined	Not available	Not available	Not available
Silica, quartz	Not available	500 mg/kg (rat)	Not available
Trade Secret	Not available	Not available	Not available

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

Skin Corrosion/Irritation

May cause mild skin irritation.

Serious Eye Damage/Irritation

May cause mechanical irritation to eyes.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May result in mechanical irritation of the respiratory tract from high dust concentrations. May aggravate asthma.

Ingestion

May cause discomfort if swallowed.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Long term exposure to respirable crystalline silica dust over the TLV may lead to the development of silicosis or other respiratory problems. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function.

Product Identifier: Duratec

Date of Preparation: February 27, 2015

Page 04 of 06

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
Diatomaceous earth, uncalcined	Not Listed	Not Listed	Not Listed	Not Listed
Silica, quartz	Group 1	A2	Known carcinogen	Not Listed
Trade Secret	Not Listed	Not designated	Not Listed	Not Listed

This product may contain trace amounts of crystalline silica which the International Agency for Research on Cancer (IARC) has listed as causing cancer in humans.

Key to Abbreviations

IARC = International Agency for Research on Cancer. Group 1 = Carcinogenic to humans. ACGIH® = American Conference of Governmental Industrial Hygienists. A2 = Suspected human carcinogen.

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Germ Cell Mutagenicity

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Environmental information was not located.

Toxicity

No information was located.

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Diatomaceous earth, uncalcined	Not available	Not available	Not available	Not available
Silica, quartz	Not available	Not available	Not available	Not available
Trade Secret	Not available	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.

Product Identifier: Duratec

Date of Preparation: February 27, 2015

Page 05 of 06

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 Chronic Health Hazard.

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

SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 1	Flammability - 0	Instability - 0
SDS Prepared By	AES Drilling Fluids		
Phone No.	281-556-5628		
Date of Preparation	February 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.		