



1. Identification

PRODUCT NAME: EZE-SLIDE™
EFFECTIVE DATE: November 16, 2015
CHEMICAL FAMILY: Drilling Fluid/Coil Tubing Fluid Additive
FORMULA: Proprietary
MANUFACTURER: SUN DRILLING PRODUCTS CORP.
503 Main Street
Belle Chasse, LA 70037

CHEMICAL EMERGENCY – Spill, Leak, Fire, Accident
USA/Canada Call 1-800 424-9300 CHEMTREC
Outside USA/Canada Call 1-703-527-3887

2. Hazard(s) identification

Hazard Classification Health

Hazards

Skin Corrosion/Irritation	Category 2
Skin sensitizer	Category 1B

Unknown toxicity

Acute toxicity, oral	0.0 %
Acute toxicity, dermal	0.0 %
Acute toxicity, inhalation, vapor	85.3 %
Acute toxicity, inhalation, dust or mist	63.3 %

Label Elements:

Hazard Symbol:



Signal Word: Warning

Hazard Statement:
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.

Precautionary Statement:

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Prevention: IF SKIN IRRITATION OCCURS: P264 + P280: Wash skin thoroughly after contact. Wear protective clothing to prevent direct skin contact.
IF INHALED: P261 + 271: Avoid breathing mist/vapors/spray. Use only outdoors or in a well-ventilated area.

Response: IF SKIN IRRITATION OCCURS: P302 + P352: Wash with plenty of water.
P332 + P313: If skin irritation occurs, get medical advice/attention.
P362 + P364: Remove contaminated clothing and wash it before reuse.

Other hazards which do not result in GHS classification:

None identified.

3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Fatty acids, tall oil, reaction products with amines and maleic anhydride	68990-47-6	40 - 50%
Mineral oil	64742-53-6	5 - 10%
Mineral oil	64742-46-7	5 - 10%
Mineral oil	8042-47-5	5 - 10%
Butyl cellosolve	111-76-2	5 - 10%

4. First-aid measures

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Inhalation: Remove exposed person to fresh air if adverse effects are observed.

Skin Contact: Take off contaminated clothing and wash before re-use. Wash skin thoroughly with soap and water. If skin irritation or rash occurs: Get medical attention. Launder contaminated clothing before reuse.

Eye contact: Flush thoroughly with water. If irritation occurs, get medical assistance. Remove contact lenses, if present and easy to do. Continue rinsing.

Most important symptoms/effects, acute and delayed

Symptoms: See section 11.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

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Suitable extinguishing media: CO2, Dry chemical or Foam. Water can be used to cool and protect exposed material.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. See section 10 for additional information.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Wear full protective fire gear including self-containing breathing apparatus operated in the positive pressure mode with full face piece, coat, pants, gloves and boots.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. See Section 8 of the SDS for Personal Protective Equipment.

Methods and material for containment and cleaning up: Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas.

Environmental Precautions: Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Avoid breathing mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Avoid contact with skin. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Launder contaminated clothing before reuse. Avoid environmental contamination.

Maximum Handling Temperature: Not determined.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. See section 10 for incompatible materials.

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Maximum Storage Temperature: Not determined.

8. Exposure controls/personal protection

Control Parameters:

Occupational Exposure Limits

Chemical name	type	Exposure Limit Values	Source
Mineral oil - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Mineral oil - Mist.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Mineral oil - Mist.	STEL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Mineral oil	Ceiling	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Mineral oil	REL	350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Mineral oil - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Mineral oil - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (02 2012)
Mineral oil - Mist.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Mineral oil - Mist.	STEL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Mineral oil - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
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Mineral oil - Mist.	STEL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Mineral oil - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Butyl cellosolve	TWA	20 ppm	US. ACGIH Threshold Limit Values (02 2012)
Butyl cellosolve	REL	5 ppm 24 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Butyl cellosolve	PEL	50 ppm 240 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Biological Limit Values

Chemical name	Exposure Limit Values	Source
Butyl cellosolve (Butoxyacetic acid (BAA), with hydrolysis: Sampling time: End of shift.)	200 mg/g (Creatinine in urine)	ACGIH BEI (03 2013)

Appropriate engineering controls:

No special requirements under ordinary conditions of use and with adequate ventilation.

Individual protection measures, such as personal protective equipment

General information:

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

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Eye/face protection:	Wear tight-fitting goggles or face shield.
Skin Protection	
Hand Protection:	Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water
Other:	Wear apron or protective clothing in case of contact. Do not wear rings, watches or similar apparel that could entrap the material. Chemical resistant boots.
Respiratory Protection:	A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapors is likely. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. Use respirator with a combination organic vapor and dust/mist cartridge.
Hygiene measures:	Observe good industrial hygiene practices. Avoid contact with skin. Wash contaminated clothing before reuse. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Light colored
Odor:	Characteristic
Odor threshold:	No data available.
pH:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	> 212 °F (100 °C) (Test method unavailable)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.91 - 0.94 79.9 °F (26.6 °C)
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.

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Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous reactions:

Will not occur.

Conditions to avoid: Not determined.

Incompatible Materials: Strong oxidizing agents. Reducing agents. Strong oxidizing agents. Strong alkalis.

Hazardous Decomposition Products:

Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, nitrogen oxides, and other products of incomplete combustion.

11. Toxicological information

Information on likely routes of exposure

Inhalation: No data available.

Ingestion: No data available.

Skin Contact: Causes skin irritation.

Eye contact: No data available.

Information on toxicological effects

Acute toxicity

Oral

Product: ATEmix > 10,000 mg/kg.
Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain. Ingestion can cause central nervous system effects such as headache, dizziness, drowsiness, and generalized weakness. Ingestion may cause red blood cell hemolysis and possible liver and kidney injury.

Dermal

Product: ATEmix > 5,000 mg/kg

Inhalation

Product: ATEmix (, 4 h): > 20 mg/l. Vapor
ATEmix (, 4 h): >5 mg/l. Dusts, mists and fumes
High concentrations may cause headaches, dizziness, weakness, irritability and other behavioral changes, nausea, and vomiting.

Skin Corrosion/Irritation:

Product: Causes skin irritation.

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Remarks: Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.

Serious Eye Damage/Eye Irritation:

Product:

Remarks: Not classified as a primary eye irritant.

Respiratory sensitization: Skin sensitization:

Fatty acids, tall oil, reaction products with amines and maleic anhydride

Classification: Skin sensitizer (Literature) Skin sensitizer

Mineral oil

Classification: Not a skin sensitizer. (Read across)

Mineral oil

Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.

Butyl cellosolve

Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.

Specific Target Organ Toxicity - Single Exposure:

Product:

If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Mineral oil

May cause irritation to the mucous membranes and upper respiratory tract.

Mineral oil

If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Butyl cellosolve

Nose, throat and lung irritant.

Aspiration Hazard:

Mineral oil

Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Mineral oil

Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Other effects:

Butyl cellosolve

Central nervous system

Chronic Effects

Carcinogenicity:

Product:

This product contains mineral oils which are severely refined and not considered carcinogenic. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

Mineral oil

All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test. This product contains mineral oils which are severely refined and not considered carcinogenic.

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Mineral oil	All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
Butyl cellosolve	Butyl cellosolve: A National Toxicology Program (NTP) chronic inhalation study revealed some evidence of carcinogenic activity in male and female mice, equivocal evidence in female rats. and no evidence in male rats.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity:

Mineral oil	The Ames Salmonella test for mutagenicity was negative for this product.
Butyl cellosolve	This material has not exhibited mutagenic or genotoxic potential in laboratory tests.

Reproductive toxicity:

Butyl cellosolve	Based on available data this product is not expected to be classified a reproductive hazard. Butyl cellosolve causes fetotoxicity in lab animals at doses which are maternally toxic.
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Specific Target Organ Toxicity - Repeated Exposure:

Butyl cellosolve	Repeated overexposure may result in liver and kidney damage. Dermal: Target Organ(s): Blood Inhalation: Target Organ(s): Blood Oral: Target Organ(s): Blood
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12. Ecological information

Ecotoxicity

Fish

Fatty acids, tall oil, reaction products with amines and maleic anhydride

LC 50 (Zebra Fish, 4 Days): > 100 mg/l

Mineral oil	LC 50 (Not reported, 96 h): > 10,000 mg/l NOEC (Not reported, 96 h): 10,000 mg/l
Butyl cellosolve	LC 50 (Bluegill Sunfish, 4 d): 1,490 mg/l LC 50 (Rainbow Trout, 4 d): 1,471 mg/l LC 50 (Zebra Fish, 21 d): > 100 mg/l NOEC (Zebra Fish, 21 d): > 100 mg/l

Aquatic Invertebrates

Mineral oil	EC 50 (Water flea (Daphnia magna), 2 d): > 10,000 mg/l
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	EC 50 (Water flea (<i>Daphnia magna</i>), 21 d): > 10 mg/l NOEC (Water flea (<i>Daphnia magna</i>), 21 d): 10 mg/l
Mineral oil	EC 50 (Water flea (<i>Daphnia magna</i>), 2 d): > 100 mg/l NOEC (Water flea (<i>Daphnia magna</i>), 2 d): >= 100 mg/l EC 50 (Water flea (<i>Daphnia magna</i>), 21 d): > 10 mg/l NOEC (Water flea (<i>Daphnia magna</i>), 21 d): 10 mg/l
Butyl cellosolve	EC 50 (Water flea (<i>Daphnia magna</i>), 2 d): 1,550 mg/l EC 50 (Water flea (<i>Daphnia magna</i>), 21 d): 297 mg/l NOEC (Water flea (<i>Daphnia magna</i>), 21 d): 100 mg/l
Toxicity to Aquatic Plants	
Mineral oil	LC 50 (Algae (<i>Pseudokirchneriella subcapitata</i>), 3 d): > 100 mg/l NOEC (Algae (<i>Pseudokirchneriella subcapitata</i>), 3 d): > 100 mg/l
Butyl cellosolve	EC 50 (Green algae (<i>Selenastrum capricornutum</i>), 3 d): 911 mg/l EC 50 (Green algae (<i>Selenastrum capricornutum</i>), 7 d): > 1,000 mg/l NOEC (Green algae (<i>Selenastrum capricornutum</i>), 3 d): 88 mg/l

Toxicity to soil dwelling organisms

No data available

Sediment Toxicity

No data available Toxicity to Terrestrial Plants

No data available

Toxicity to Above-Ground Organisms

No data available

Toxicity to microorganisms

Butyl cellosolve EC 50 (Sludge, 0.1 d): > 1,000 mg/l

Persistence and Degradability Biodegradation

Fatty acids, tall oil, reaction products with amines and maleic anhydride

OECD TG 301 D, 2.7 %, 28 d, Not readily degradable.

Mineral oil OECD TG 301 F, 31 %, 28 d, Not readily degradable.

Mineral oil OECD TG 301 F, 60 %, 28 d, Readily biodegradable

Mineral oil OECD TG 301 F, 31.13 %, 28 d, Not readily degradable.

Butyl cellosolve OECD TG 302 B, 100 %, 28 d, Readily biodegradable
OECD TG 301 E, 95 %, 28 d, Readily biodegradable
OECD TG 301 B, 90.4 %, 28 d, Readily biodegradable

Bioaccumulative Potential

Bioconcentration Factor (BCF) No data available.

Partition Coefficient n-octanol / water (log Kow)

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Butyl cellosolve

Log Kow: 0.81 (Measured)

Mobility: No data available.

Other Adverse Effects: No data available.

13. Disposal considerations

Disposal instructions: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty container contains product residue which may exhibit hazards of product.

Contaminated Packaging: Container packaging may exhibit hazards.

14. Transport information

DOT

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

None known.

Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. Review classification requirements before shipping materials at elevated temperatures.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate
(Acute) Health
Hazards

SARA 302 Extremely Hazardous Substance

SARA 304 Emergency Release Notification

SARA 311/312 Hazardous Chemical

SARA 313 (TRI Reporting)

This product may contain chemical(s) regulated under the Superfund Amendments and Reauthorization Act (SARA). Additional information can be received upon request.

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US State Regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

Inventory Status

Australia (AICS)

This product contains a substance that is not listed on the Australia Inventory of Chemical Substances.

Canada (DSL/NDSL)

All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

China (IECSC)

All components of this product are listed on the Inventory of Existing Chemical Substances in China.

European Union (REACH)

To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Japan (ENCS)

This product contains a substance that is not listed on the Japanese Existing and New Chemical Substances (ENCS) list.

Korea (ECL)

All components are in compliance in Korea.

New Zealand (NZIoC)

All components are in compliance with chemical notification requirements in New Zealand.

Philippines (PICCS)

May require notification before sale under Philippines Republic Act 6969.

Switzerland (SWISS)

All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan (TCSCA)

All components of this product are listed on the Taiwan inventory.

United States (TSCA)

All components of this material are on the US TSCA Inventory.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

16. Other information, including date of preparation or last revision

FOOT NOTES: NA NOT APPLICABLE

ND – NO DATA AVAILABLE

> = GREATER THAN OR EQUAL TO

< = LESS THAN OR EQUAL TO

REVISION STATEMENT: Changes have been made throughout this Safety Data Sheet. Please read the entire document.

DISCLAIMER:

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control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal Regulations concerning the Product.

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