

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Drill Lube SS

Other means of identification : Not applicable.

Recommended use : ADDITIVE, SURFACTANT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Drillchem Drilling Solutions, LLC
PO Box 13107
Spring, TX 77393 USA
Office: (281) 713-8941

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 04/14/2017

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Skin irritation : Category 2

Eye irritation : Category 2B

Carcinogenicity : Category 1B

Reproductive toxicity : Category 2

Specific target organ toxicity : Category 3 (Central Nervous System)

- single exposure

Aspiration hazard : Category 1

GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin and eye irritation.
May cause drowsiness or dizziness.
May cause cancer.
Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:

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IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:
Store in a well-ventilated place.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Concentration: (%)</u>
Diesel Fuel No. 2	68476-34-6	10 - 30
Kerosene	8008-20-6	10 - 30
Isopropanol	67-63-0	10 - 30
Nonane	111-84-2	5 - 10
Organic sulfonic acid salt	Proprietary	1 - 5
Naphthalene	91-20-3	1 - 5
Severely Hydrotreated Heavy Naphthenic Distillate	64742-52-5	1 - 5
Trimethylbenzene	25551-13-7	1 - 5
Biphenyl	92-52-4	1 - 5
Ethylbenzene	100-41-4	0.1 - 1
Cumene	98-82-8	0.1 - 1
Distillates (Petroleum), Catalytic Reformer Fractionator Residue, Low Boiling	68477-31-6	0.1 - 1
Toluene	108-88-3	0.1 - 1

Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Get medical attention if irritation develops and persists.

If swallowed : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed - can enter lungs and cause damage. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

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Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Foam
Carbon dioxide
Dry powder
Other extinguishing agent suitable for Class B fires
For large fires, use water spray or fog, thoroughly drenching the burning material.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Fire Hazard
Keep away from heat and sources of ignition.
Flash back possible over considerable distance.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides
nitrogen oxides (NOx) Sulphur oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Remove all sources of ignition. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Do not flush into surface water or sanitary sewer system.

Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid contact with skin and eyes. Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from fire, sparks and heated surfaces. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Use only with adequate ventilation.

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Conditions for safe storage : Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep container tightly closed. Store in suitable labelled containers.

Suitable material : Keep in properly labelled containers.

Unsuitable material : not determined

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Diesel Fuel No. 2	68476-34-6	TWA (Inhalable fraction and vapor)	100 mg/m ³ (total hydrocarbons)	ACGIH
Kerosene	8008-20-6	TWA	100 mg/m ³	NIOSH REL
		TWA	500 ppm 2,000 mg/m ³	OSHA Z1
		TWA	200 mg/m ³ (as total hydrocarbon vapor)	ACGIH
Isopropanol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m ³	NIOSH REL
		STEL	500 ppm 1,225 mg/m ³	NIOSH REL
		TWA	400 ppm 980 mg/m ³	OSHA Z1
Nonane	111-84-2	TWA	200 ppm	ACGIH
		TWA	200 ppm 1,050 mg/m ³	NIOSH REL
Naphthalene	91-20-3	TWA	10 ppm	ACGIH
		TWA	10 ppm 50 mg/m ³	NIOSH REL
		STEL	15 ppm 75 mg/m ³	NIOSH REL
		TWA	10 ppm 50 mg/m ³	OSHA Z1
Severely Hydrotreated Heavy Naphthenic Distillate	64742-52-5	TWA (Inhalable fraction)	5 mg/m ³	ACGIH
		TWA (Mist)	5 mg/m ³	NIOSH REL
		STEL (Mist)	10 mg/m ³	NIOSH REL
		TWA (Mist)	5 mg/m ³	OSHA Z1
Trimethylbenzene	25551-13-7	TWA	25 ppm	ACGIH
Biphenyl	92-52-4	TWA	0.2 ppm	ACGIH
		TWA	0.2 ppm 1 mg/m ³	NIOSH REL
		TWA	0.2 ppm 1 mg/m ³	OSHA Z1
Ethylbenzene	100-41-4	TWA	20 ppm	ACGIH

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		TWA	100 ppm 435 mg/m3	NIOSH REL
		STEL	125 ppm 545 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA Z1
Cumene	98-82-8	TWA	50 ppm	ACGIH
		TWA	50 ppm 245 mg/m3	NIOSH REL
		TWA	50 ppm 245 mg/m3	OSHA Z1
Toluene	108-88-3	TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m3	NIOSH REL
		STEL	150 ppm 560 mg/m3	NIOSH REL
		TWA	200 ppm	OSHA/Z2
		CEIL	300 ppm	OSHA/Z2
		Peak	500 ppm	OSHA/Z2

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety glasses

Safety goggles
Face-shield

Hand protection : Wear the following personal protective equipment:
Impervious butyl rubber gloves
Nitrile rubber
Neoprene gloves
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : brown

Odour : hydrocarbon-like

Flash point : 25.6 °C, Method: Pensky-Martens closed cup

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pH	: Not applicable.
Odour Threshold	: no data available
Melting point/freezing point	: pour point: <= -40 °C
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 0.8750 - 0.9050, (15.6 °C),
Density	: 0.8715 - 0.9014 g/cm ³
Water solubility	: insoluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: 15 - 35 mPa.s (23.9 °C)
Viscosity, kinematic	: 18.5 mm ² /s (40 °C)
Molecular weight	: no data available
VOC	: no data available

Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NO _x) Sulphur oxides

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation, Eye contact, Skin contact

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exposure

Potential Health Effects

Eyes	: Causes eye irritation.
Skin	: Causes skin irritation.
Ingestion	: May be fatal if swallowed and enters airways.
Inhalation	: Inhalation may cause central nervous system effects.
Chronic Exposure	: May cause cancer. Suspected of damaging fertility or the unborn child.

Experience with human exposure

Eye contact	: Redness, Irritation
Skin contact	: Redness, Irritation
Ingestion	: Vomiting
Inhalation	: Dizziness, Drowsiness

Toxicity

Product

Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate: > 200 mg/l Exposure time: 4 h
Acute dermal toxicity	: Acute toxicity estimate: > 5,000 mg/kg
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: Result: Mild eye irritation
Respiratory or skin sensitization	: no data available

Carcinogenicity

IARC

Group 2B: Possibly carcinogenic to humans

Naphthalene	91-20-3
Ethylbenzene	100-41-4
Cumene	98-82-8

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

Reasonably anticipated to be a human carcinogen

Naphthalene	91-20-3
Cumene	98-82-8

Reproductive effects	: no data available
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Germ cell mutagenicity : no data available
Teratogenicity : no data available
STOT - single exposure : no data available
STOT - repeated exposure : no data available
Aspiration toxicity : no data available

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects : Toxic to aquatic life with long lasting effects.

Components

Toxicity to fish : Isopropanol
LC50 Pimephales promelas (fathead minnow): 9,640 mg/l
Exposure time: 96 h

Toluene
LC50 Oncorhynchus kisutch (coho salmon): 5.5 mg/l
Exposure time: 96 h

Components

Toxicity to daphnia and other aquatic invertebrates : Diesel Fuel No. 2
EC50 : 5.5 mg/l
Exposure time: 48 h

Isopropanol
LC50 Daphnia magna (Water flea): > 10,000 mg/l

Ethylbenzene
EC50 Daphnia: 1.81 mg/l
Exposure time: 48 h

Toluene
LC50 Ceriodaphnia dubia (water flea): 3.78 mg/l
Exposure time: 48 h

Components

Toxicity to algae : Kerosene
EC50 Pseudokirchneriella subcapitata (green algae): 5 mg/l
Exposure time: 72 h

Cumene
EC50 : 3.4 mg/l
Exposure time: 72 h

Toluene
EC50 Chlorella vulgaris (Fresh water algae): 134 mg/l
Exposure time: 72 h

Components

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Toxicity to bacteria : Isopropanol
1,050 mg/l

Toluene
84 mg/l
EC50 Nitrosomonas Sp.: 84 mg/l
Exposure time: 24 h

Components

Toxicity to fish (Chronic toxicity) : Toluene
NOEC: 1.39 mg/l
Exposure time: 40 d
Species: Oncorhynchus kisutch (coho salmon)

Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Toluene
NOEC: 0.74 mg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia

Persistence and degradability

no data available

Mobility

no data available

Bioaccumulative potential

no data available

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods : The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

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The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Land transport (DOT)

Proper shipping name : FLAMMABLE LIQUID, N.O.S.
Technical name(s) : Isopropanol, Diesel
UN/ID No. : UN 1993
Transport hazard class(es) : 3
Packing group : III
Reportable Quantity (per package) : 6,537 lbs
RQ Component : Naphthalene

Air transport (IATA)

Proper shipping name : FLAMMABLE LIQUID, N.O.S.
Technical name(s) : Isopropanol, Diesel
UN/ID No. : UN 1993
Transport hazard class(es) : 3
Packing group : III
Reportable Quantity (per package) : 6,537 lbs
RQ Component : Naphthalene

Sea transport (IMDG/IMO)

Proper shipping name : FLAMMABLE LIQUID, N.O.S.
Technical name(s) : Isopropanol, Diesel
UN/ID No. : UN 1993
Transport hazard class(es) : 3
Packing group : III

*Marine pollutant : Naphthalene, Biphenyl

*Note: This product is regulated as a Marine Pollutant when shipped by Rail, Highway (in bulk quantities), or Air (if no other hazard class applies), and when shipped by water in all quantities.

Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.
The following substance(s) is/are subject to TSCA 12(b) export notification requirements:

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Naphthalene	91-20-3	100	6537

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

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SARA 311/312 Hazards : Acute Health Hazard
Fire Hazard
Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Naphthalene	91-20-3	1 - 5 %
Biphenyl	92-52-4	1 - 5 %
Ethylbenzene	100-41-4	0.1 - 1 %

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D):

The following components are listed: Nonane

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

Naphthalene	91-20-3
Ethylbenzene	100-41-4
Cumene	98-82-8

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Toluene	108-88-3
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INTERNATIONAL CHEMICAL CONTROL LAWS :

United States TSCA Inventory

On TSCA Inventory

Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

Australia. Industrial Chemical (Notification and Assessment) Act

Not in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

Not in compliance with the inventory

China Inventory of Existing Chemical Substances

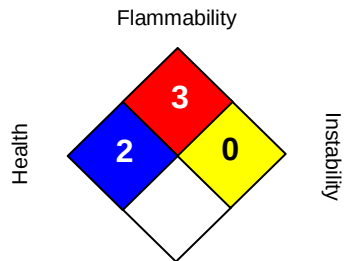
Not in compliance with the inventory

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Section: 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	2*
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

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