SAFETY DATA SHEET

Hydrosurf

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Hydrosurf
Recommended use	:	Lubricants and lubricant additives
Restrictions on use	:	None
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	:	09/14/2017

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	:	Category 3
Acute toxicity (Oral)	:	Category 4
Skin Corrosion	:	Category 1B
Serious eye damage	:	Category 1
Specific target organ toxicity - single exposure	:	Category 2 (Eyes)

GHS Label element

Hazard pictograms :

Signal Word : Danger

Hazard Statements :

Flammable liquid and vapour.
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause damage to organs (Eyes).

Precautionary Statements :

Prevention:
Keep away from heat/sparks/open flames/hot surfaces. –No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rise mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Rmove person to fresh air

and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rise cautiously with water for several minutes . Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
IF exposed or concerned: Call a POISON CENTER/doctor.
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

Chemical Name	CAS-No.	Concentration: (%)
Quaternary Ammonium Compound	Proprietary	30 - 60
Coconut Oil Amides	Proprietary	10 – 30
Isopropanol	67-63-0	5 – 10
Methanol	67-56-1	1 – 5

Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 16 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 16 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention immediately.

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.

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	:	None known.
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 of phosphorus
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. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. 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. Flush away traces with water.

Section: 7. HANDLING AND STORAGE

Advice on safe handling	:	Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Do not ingest. Keep away from fire, sparks and heated surfaces. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
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
Isopropanol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACIGH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		STEL	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z1
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m3	NIOSH REL
		STEL	250 ppm 325 mg/m3	NIOSH REL
		TWA	200 ppm 260 mg/m3	OSHA Z1

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

Personal protective equipment

Eye protection : Safety glasses
Face-shield

Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and 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. Provide suitable facilities for quick drenching or flushing of the yes and body in case of contact or splash hazard.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Colourless, clear

Odour	:	Mild
Flash point	:	48.8°C, Mothod: Pensky-Marens closed cup
pH	:	7.4 at 24°C
Odour Threshold	:	no data available
Melting point/freezing point	:	no data available
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	:	0.9479,
Density	:	no data available
Water solubility	:	Complete
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	:	16 cST at 24°C
Viscosity, kinematic	:	no data available
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 (NOx) Hydrogen chloride

Section: 11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects

Eyes	:	Causes serious eye damage.
Skin	:	Causes severe skin burns.
Ingestion	:	May cause blindness if swallowed. Harmful if swallowed. Causes digestive tract burns.
Inhalation	:	May cause nose, throat and lung irritation.
Chronic Exposure	:	Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact	:	Redness, Pain, Corrosion
Skin contact	:	Redness, Pain, Corrosion
Ingestion	:	Corrosion, Abdominal pain
Inhalation	:	Respiratory irritation, Cough

Toxicity

Product

Acute oral toxicity	:	Acute toxicity estimate: 498.2 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate: 62.81 mg/l Exposure time: 4 h
Acute dermal toxicity	:	Acute toxicity estimate: 2,667 mg/kg
Skin corrosion/irritation	:	no data available
Serious eye damage/eye irritation	:	no data available
Respiratory or skin sensitization	:	no data available
Carcinogenicity		no data available
Reproductive effects	:	no data available
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	:	Very toxic to aquatic life with long lasting effects.

Components

Toxicity to fish	:	Oxyalkylated alcohol LC50 Fish: 1.125 mg/l Exposure time: 96 h Isopropanol LC50 Pimephales promelas (fathead minnow): 9,640 mg/l Exposure time: 96 h Mehtanol LC50: 15,400 mg/l Exposure time: 96 h

Components

Toxicity to daphnia and other aquatic invertebrates	:	Quaternary Ammonium compound EC50 Daphnia magna (Water flea): 0.016 mg/l Exposure time: 48 h Isopropanol LC50 Daphnia Magna (Water flea): > 10,000 mg/l Methanol EC50 : > 10,000 mg/l Exposure time: 48 h

Components

Toxicity to algae	:	Methanol EC50 : 22,000 mg/l Exposure time: 72 h

Components

Toxicity to bacteria	:	Isopropanol 1,050 mg/l Methanol >1,000 mg/l

Components

Toxicity to fish (Chronic toxicity)	:	Methanol NOEC: 7,900 mg/l Exposure time: 8.3 d

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.

Land transport (DOT)

Proper shipping name	:	CORROSIVE LIQUID, FLAMMABLE, N.O.S.
Technical name(s)	:	Quaternary Ammonium compound, Isopropanol
UN/ID No.	:	UN 2920
Transport hazard class(es)	:	8, 3
Packing group	:	II

Air transport (IATA)

Proper shipping name	:	CORROSIVE LIQUID, FLAMMABLE, N.O.S.
Technical name(s)	:	Quaternary Ammonium compound, Isopropanol
UN/ID No.	:	UN 2920
Transport hazard class(es)	:	8, 3
Packing group	:	II

Sea transport (IMDG/IMO)

Proper shipping name	:	CORROSIVE LIQUID, FLAMMABLE, N.O.S.
Technical name(s)	:	Quaternary Ammonium compound, Isopropanol
UN/ID No.	:	UN 2920
Transport hazard class(es)	:	8, 3
Packing group	:	II

*Marine pollutant : Quaternary Ammonium compound

*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.
No substances 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	67-56-1	5000	104690

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Acute Health Hazard
Fire 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:

Methanol	67-56-1	1 - 5 %

California Prop 65

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

Methanol	67-56-1

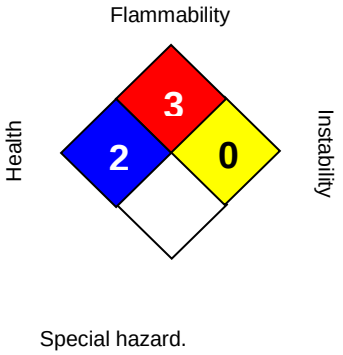
INTERNATIONAL CHEMICAL CONTROL LAWS:

United States TSCA Inventory
On TSCA Inventory
Not determined

Hydrosurf

Section: 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	0

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

Revision Date	:	09/14/2017
Version Number	:	1.0

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.