

  
**FLOTEK CHEMISTRY**  
**SAFETY DATA SHEET**

Issue date 11-Aug-2021

Revision Date 31-Aug-2021

Revision Number 1

**1. IDENTIFICATION**

**1.1. Product identifier**

**Product name** Rig Rags

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Recommended use** Cleaning agent Cleaning Supplies  
**Uses advised against** No information available

**1.3. Details of the supplier of the safety data sheet**

**Supplier**

Flotek Chemistry, LLC  
1004 S. Plainsman Road  
Marlow, OK 73055  
Phone +1 (580) 658-6608  
Fax +1 (580) 658-3223

Flotek Chemistry, LLC  
Waanderweg 64  
7812 HZ, Emmen  
The Netherlands  
Phone +31 (0) 6 52054767

For further information, please contact:

**E-mail address** information@flotekind.com

**1.4. Emergency telephone number**

**Emergency telephone** +1 405-282-8510

**2. HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No 1272/2008**

Skin sensitization	Category 1
Chronic aquatic toxicity	Category 2

**2.2. Label elements**



**Signal word**

Warning

**Hazard statements**

H317 - May cause an allergic skin reaction  
H411 - Toxic to aquatic life with long lasting effects

**Precautionary Statements - EU (§28, 1272/2008)**

P280 - Wear eye protection/ face protection

**2.3. Other hazards****3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
d-Limonene	227-813-5	5989-27-5	<5	Skin Irrit. 2 (H315) Flam. Liq. 3 (H226) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119529223-47-XX XX

**4. FIRST AID MEASURES****Description of first aid measures****Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

**Ingestion**

Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

**Inhalation**

Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms persist, call a physician.

**Self-Protection of the First Aider**

Remove all sources of ignition. Use personal protective equipment as required.

**4.2. Most important symptoms and effects, both acute and delayed****4.3. Indication of any immediate medical attention and special treatment needed****Notes to physician**

Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****5.1. Extinguishing media****Suitable Extinguishing Media**

Use CO2, dry chemical, or foam.

**Extinguishing media which must not be used for safety reasons**

No information available.

**5.2. Special hazards arising from the substance or mixture****Special Hazard**

May be ignited by heat, sparks or flames.

**5.3. Advice for firefighters****Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment as required.

See section 12 for additional ecological information.

**6.2. Environmental precautions**

Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

**6.3. Methods and material for containment and cleaning up**

Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Soak up with inert absorbent material. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal. Do not flush into surface water or sanitary sewer system.

**6.4. Reference to other sections**

## 7. HANDLING AND STORAGE

**7.1. Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Do not breathe vapors or spray mist. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes or clothing. Wear personal protective equipment/face protection. When using do not eat, drink or smoke.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

**7.3. Specific end use(s)**

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters****Exposure Guidelines****Exposure limits**

Chemical name	European Union	United Kingdom	France	Spain	Germany
d-Limonene 5989-27-5	-	-	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	TWA: 30 ppm TWA: 168 mg/m <sup>3</sup> via dérmica*	TWA: 5 ppm TWA: 28 mg/m <sup>3</sup> Ceiling / Peak: 20 ppm Ceiling / Peak: 112 mg/m <sup>3</sup>
Component	Italy	Portugal	Netherlands	Finland	Denmark
d-Limonene 5989-27-5 ( <5 )		-		TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 50 ppm STEL: 280 mg/m <sup>3</sup>	-
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
d-Limonene 5989-27-5		STEL: 14 ppm STEL: 80 mg/m <sup>3</sup> TWA: 7 ppm	-	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 37.5 ppm	-

		TWA: 40 mg/m <sup>3</sup>		STEL: 175 mg/m <sup>3</sup>	
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**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available

## 8.2. Exposure controls

### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### **Personal protective equipment**

#### **Eye Protection**

Safety glasses with side-shields. Goggles.

#### **Hand Protection**

Impervious gloves.

#### **Skin and body protection**

Wear suitable protective clothing.

#### **Respiratory protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA/CEN approved respiratory protection should be worn.

### **Hygiene measures**

When using do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

**Environmental Exposure Controls** Do not allow material to contaminate ground water system.

## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Physical State** liquid absorbed on solid wipe  
**Appearance** No information available  
**Color** No information available  
**Odor** No information available.  
**Odor Threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	
<b>Melting point / freezing point</b>	< No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	No data available -	No information available
<b>Water solubility</b>	No data available	
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Viscosity, dynamic</b>	No data available	None known
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

### 9.2. Other information

**Softening point** No information available  
**Molecular Weight** No information available  
**VOC Content (%)** No information available  
**Liquid Density** No information available

**Bulk density** No information available

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

Heat, flames and sparks.

### 10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

### **Hazardous Decomposition Products**

Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### **Acute toxicity**

#### **Product Information**

#### **Inhalation**

None under normal use conditions. Vapors may be irritating to eyes, nose, throat, and lungs. May cause irritation of respiratory tract.

#### **Eye contact**

None under normal use conditions. Avoid contact with eyes. Moderately irritating to the eyes.

#### **Skin contact**

None under normal use conditions. May cause irritation. Prolonged contact may cause redness and irritation.

#### **Ingestion**

None under normal use conditions. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
d-Limonene	5000 mg/kg ( Rat )	>5000 mg/kg ( Rabbit )	-

#### Chronic toxicity

#### **Carcinogenicity**

No known carcinogens are present at greater than 0.1%

Chemical name	ACGIH	IARC	NTP	OSHA
d-Limonene		Group 2A Group 3	-	X

#### **Sensitization**

No information available

#### **Reproductive toxicity**

No information available

#### **Mutagenic effects**

No information available

#### **Developmental Toxicity**

No information available

#### **Teratogenicity**

No information available

#### **Target organ effects**

No information available.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
d-Limonene	-	35: 96 h Oncorhynchus mykiss mg/L LC50 0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through (stroom door)	-	-

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available

### 12.6. Other adverse effects

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from Residues/Unused Products

Dispose of in accordance with local regulations.

#### Contaminated packaging

Do not reuse empty containers.

#### EWC Waste Disposal No

According to the European Waste Catalog, Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application for which the product was used

## 14. TRANSPORT INFORMATION

#### Note

This material is a marine pollutant when shipped in packages greater than 119 gallons per DOT requirements. Please refer to IMDG information listed below for proper shipping information.

#### DOT

Not regulated

#### IMDG/IMO

##### UN/ID no

##### Marine pollutant

UN3082, Environmentally hazardous substances, liquid, n.o.s., (Dipentene), 9 PG III  
Not regulated when carried in single or combination packaging containing a net quantity of 5L or less for liquids or 5 KG or less for solids

#### ADR/RID

Not regulated

#### ICAO/IATA

Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA</b>	Complies
<b>EINECS/ELINCS</b>	-
<b>DSL/NDSL</b>	Complies
<b>PICCS</b>	-
<b>ENCS</b>	-
<b>IECSC</b>	-
<b>AICS</b>	-
<b>KECL</b>	-

### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances

### 15.2. Chemical safety assessment Chemical Safety Report

#### US Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

##### **SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

##### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

##### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

#### **Canada**

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR**

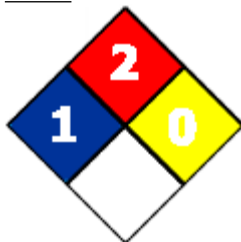
Chemical name	WHMIS Hazard Class
d-Limonene	1 % B3,D2B

### Legend

NPRI - National Pollutant Release Inventory

## 16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 1	Flammability 0	Stability 0	Physical and chemical properties -
<u>HMIS</u>	Health hazards 1	Flammability 0	Physical hazards 0	Personal protection -.



### Full text of H-Statements referred to under sections 2 and 3

H317 - May cause an allergic skin reaction

H411 - Toxic to aquatic life with long lasting effects

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Legend

Prepared By	HSE Department
Issue date	11-Aug-2021
Revision Date	31-Aug-2021
Revision Note	Not applicable.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

US Only: This safety data sheet complies with the requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### Disclaimer

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