



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier : StimOil® FBA Plus
Chemical Name : Not Applicable, A Blend
Chemical Family : Not Applicable, A Blend
Manufacturer : CESI Chemical (a Flotek Industries, Inc. company)
: 1004 S. Plainsman Road, Marlow, OK 73055
Emergency Phone : (405) 282-8510
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient : Isopropanol
CAS No. : 67-63-0
Wt. Percent Range : 10-50
OSHA PEL : 400 ppm TWA
ACGIH TLV : 400 ppm TWA
LD50 : Peroral 6.48 ml/kg (rat) Percutaneous 8.0 ml/kg (rabbit)
LC50 : Fathead Minnow 8,300 mg/l (96 h) Daphnia 7,550 mg/l (48 h)

Ingredient : Citrus Terpenes
CAS No. : 94266-47-4
Wt. Percent Range : 10-50
OSHA PEL : Not established
ACGIH TLV : Not established
LD50 : Dermal >5g/kg (rabbit) Oral >5g/kg (rat)
LC50 : No data available

3. HAZARDS IDENTIFICATION

Human health hazards
Acute health hazards : Eye, skin and inhalation irritant. Harmful if swallowed.
Chronic health hazards : Defatting or dermatitis of the skin.
Route(s) of entry : Eyes, skin, inhalation, ingestion
Safety hazards : Flammable liquid
Environmental hazards : No information is available on the product.

4. FIRST AID MEASURES

Eye : Remove contact lenses at once. Immediately flush with copious amounts of water for at least 15 minutes while holding eyelids open. If irritation persists, seek medical attention.
Skin : Wash affected area thoroughly with soap and water. Remove contaminated clothing and laundry before reuse. If irritation develops, seek medical attention.
Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek prompt medical attention.
Ingestion : Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash Point	: 77 ⁰ F (25 ⁰ C) (Closed Cup)
Lower Explosion Limit	: 0.7% (Citrus Terpenes)
Upper Explosion limit	: 6.1% (Citrus Terpenes)
Extinguishing Media	: carbon dioxide, foam or dry chemical
Protective equipment	: NIOSH/MSHA approved self-contained breathing apparatus (SCBA) and turnout gear.

Hazardous combustion products : Carbon monoxide may be evolved if incomplete combustion occurs.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Wear hand, eye, protective clothing and respiratory protective equipment to eliminate contact.
General precautions	: Eliminate ignition sources. Evacuate all non-essential personnel.
Small spills	: Soak up residue with an inert absorbent and place into appropriate containers for disposal or reclamation. Flush contaminated area thoroughly with water. Retain washings as contaminated waste.
Large spills	: If possible stop the flow of chemical. Dike to contain and prevent spreading. Remove with vacuum truck or pump to salvage vessels. Treat residue as for small spills.

7. HANDLING AND STORAGE

Handling	: Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Use with adequate ventilation. Do not take internally. Wear appropriate protective clothing and equipment during handling. Wash thoroughly after handling. Remove contaminated clothing and launder before reuse.
Storage	: Store away from heat, sparks and open flames. Keep container closed when not in use. Store drums with the bung up. Carefully vent container before removing bung.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure standards	: Not established for the product.
Hand protection	: Nitrile rubber gloves.
Eye protection	: Chemical splash goggles and face shield if conditions warrant.
Respiratory protection	: Not normally required.
Engineering control measures	: General (mechanical) room ventilation is expected to be satisfactory.
Other	: Emergency eye wash fountains and safety showers should be in the immediate vicinity of any potential exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Liquid
Appearance	: Clear to opaque
Color	: Light yellow
Odor	: Citrus
Specific Gravity	: 0.935
Bulk Density	: 7.80 lbs/gal
Boiling Point	: 310 ⁰ F (154.4 ⁰ C)
Freezing Point	: < -42 ⁰ F (< -41.1 ⁰ C)
Solubility in water	: 69-79%
pH	: Not determined
Percent Volatiles	: 55-75% weight
Vapor Pressure	: Not determined

10. STABILITY AND REACTIVITY

Stability	: Stable
Conditions to avoid	: Heat, sparks, open flames
Hazardous polymerization	: Will not occur
Hazardous decomposition products	: Carbon monoxide may be evolved if incomplete combustion occurs.
Incompatibility	: Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

Acute Effects	
Eye	: Causes moderate to severe irritation. If not removed promptly, permanent injury may result.
Skin	: May cause mild to moderate irritation with brief contact. Prolonged contact may cause severe irritation, drying, defatting and dermatitis.
Inhalation	: May cause nose, throat and general upper respiratory tract irritation, coughing and headache.
Ingestion	: Product is harmful if swallowed. May cause vomiting, headache, nausea, diarrhea, abdominal cramps, drowsiness and dizziness.
Chronic Effects	: No other known chronic effects.
Carcinogenicity	: None of the ingredients are listed in NTP, IARC monographs or OSHA regulated.

12. ECOLOGICAL INFORMATION

Environmental Fate	: Product is expected to be readily biodegradable.
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13. DISPOSAL CONSIDERATIONS

Waste disposal	: Recycle if possible. Otherwise dispose to licensed disposal contractor.
Product disposal	: Recycle if possible. Otherwise comply with all local, state and federal regulations.
Container disposal	: Drain container thoroughly. Triple rinse with water. Send to reclaimer or dispose of properly. Comply with all local, state and federal regulations.

14. TRANSPORT INFORMATION

LAND (D.O.T.)

Shipping Name	: UN1993, Flammable liquids, n.o.s., (contains Isopropanol and Citrus Terpenes), 3, PG III
Label(s) required	: Flammable
Emergency Phone	: (405) 282-8510

AIR (IATA)

Shipping Name	: UN1993, Flammable liquids, n.o.s., (contains Isopropanol and Citrus Terpenes), 3, PG III
Label(s) required	: Flammable

SEA (IMDG)

Shipping Name	: UN1993, Flammable liquids, n.o.s., (contains Isopropanol and Citrus Terpenes), 3, PG III
Label(s) required	: Flammable

15. REGULATORY INFORMATION

	This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
OSHA Classification	: Flammable
TSCA (USA)	: All components listed.
DSL (Canada)	: All components listed. (Terpenes may be listed as 68647-72-3)
SARA Title III Section 302	: Extremely Hazardous Substances (40CFR355): This product does not contain ingredients listed in Appendix A and B.
Sections 311/312	
Immediate (acute) health hazard	: YES
Delayed (chronic) health hazard	: YES
Fire hazard	: YES
Sudden Release of Pressure Hazard	: NO
Reactive Hazard	: NO

Section 313 Reportable Quantities : None

CERCLA : If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and must be reported to the National Response Center by calling (800) 424-8802.

Reportable Quantity : Not established for this product.

16. OTHER INFORMATION

NFPA 704

Health : 2
Fire : 3
Reactivity : 0
Special : None

HMIS

Health : 2
Fire : 3
Reactivity : 0
Special : None

Disclaimer of Liability : The information contained in this MSDS was obtained from sources that we believe are reliable. However, the information is without any warranty, express or implied, regarding correctness. The methods of handling, storage, use and disposal of the product are beyond our control and may be outside the scope of our knowledge. For these reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.