



SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

SDS # : 38264

FS-LUBRILAM S 60 L

Date of the previous version: not applicable

Revision Date: 2015-10-23

Version 1

1. IDENTIFICATION

Product identifier

Product name FS-LUBRILAM S 60 L

Other means of identification

Product Code(s) 38264

Trade name -
Substance/mixture Substance

Recommended use of the chemical and restrictions on use

Identified uses Manufacture of substances. Distribution of substance. Metalworking fluid. Rolling oil. Laboratory activities.

Uses advised against Do not use for any purpose other than the one for which it is intended

Details of the supplier of the safety data sheet

Supplier Address TOTAL Specialties USA Inc
1201 Louisiana Street, Suite 1800
Houston, TX 77002
Phone: +1 800 323 3198

Contact Point Technical/ HSEQ

E-mail Address specialfluidsusa@total.com

Emergency telephone number

Company Phone Number +1 (713) 483-5039
Company Emergency Phone Number 1-866-GENERA-1 (1-866-436-3721)
Emergency telephone CHEMTREC: +1 800 424 9300 (24h)

2. HAZARDS IDENTIFICATION

Classification

Aspiration toxicity - Category 1

Label elements

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**DANGER**

May be fatal if swallowed and enters airways

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/ container to an approved waste disposal plant

Unknown Acute Toxicity

No information available

Hazards not otherwise classified (HNOC)

None known

Other information**Physical-Chemical Properties**

Contaminated surfaces will be extremely slippery.

Properties Affecting Health

If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours).

3. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

A complex and variable combination of paraffinic and cyclic hydrocarbons having a carbon number range predominantly of C13 to C23 and boiling in the range of approximately 220°C to 370°C.

Chemical Name	CAS-No	Weight %
Hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	^	100

Additional information

Related CAS: 64742-46-7

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4. FIRST AID MEASURES**First aid measures for different exposure routes**

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
Skin contact	Remove contaminated clothing and shoes. Wash off with soap and water.
Inhalation	In case of exposure to intense concentrations of vapours, fumes or spray, transport the person away from the contaminated zone, keep warm and allow to rest.
Ingestion	Do not ingest. If swallowed then seek immediate medical assistance. Risk of product entering the lungs on vomiting after ingestion. In this case, the casualty should be sent immediately to hospital.
Protection of First-aiders	Use personal protective equipment.

Most important symptoms/effects, acute and delayed

Skin contact	Non-irritating during normal use.
Eye contact	Burning feeling and temporary redness.
Inhalation	Vapors inhaled in strong concentration have a narcotic effect on the central nervous system.
Ingestion	If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours). Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u>	Foam. Dry powder. Carbon dioxide (CO ₂).
Uniform Fire Code	Combustible Liquid: III-B
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.

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Special Hazard

Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

Explosion Data**Sensitivity to Mechanical Impact
Sensitivity to Static Discharge**

None.
May be ignited by friction, heat, sparks or flames.

**Protective Equipment and
Precautions for Firefighters**

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

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****General Information**

Use personal protective equipment.
Evacuate non-essential personnel.
Ensure adequate ventilation, especially in confined areas.
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Do not touch or walk through spilled material.

Other information

Remove all sources of ignition.

Environmental precautions**General Information**

Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills. The product should not be allowed to enter drains, water courses or the soil. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up**Methods for cleaning up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.
Following product recovery, flush area with water.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist.
Avoid contact with skin, eyes and clothing.

Technical measures

Ensure adequate ventilation.
Do not spray at high pressure (> 3 bar) .

Prevention of fire and explosion

Handle away from any source of ignition (open flame and sparks) and heat (hot manifolds or casings). Do not smoke.
Take precautionary measures against static discharges.

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Hygiene measures

Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke.
Regular cleaning of equipment, work area and clothing is recommended. Do not dry hands with rags that have been contaminated with product. Do not use abrasives, solvents or fuels.
Wash hands before breaks and at the end of workday.

Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts.
Storage installations should be designed with adequate bunds so as to prevent ground or water pollution in case of leaks or spills.
Keep in a bunded area. Keep in a dry, cool and well-ventilated place.
Keep away from open flames, hot surfaces and sources of ignition. Ground/bond containers, tanks and transfer/receiving equipment. Store at room temperature.
Keep containers tightly closed and properly labelled.
Use only hydrocarbon-resistant containers, seals, pipes, etc.

Packaging material

Keep only in the original container or in a suitable container for this kind of product. steel .
Stainless steel.

Materials to Avoid

Strong acids. Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure limits**

Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined).

Exposure controls**Engineering Measures**

When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment**General Information**

Protective engineering solutions should be implemented and in use before personal protective equipment is considered.
These recommendations apply to the product as supplied.
If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers.

Eye/Face Protection

If splashes are likely to occur, wear: Safety glasses with side-shields.

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Skin and body protection	Wear suitable protective clothing. Protective shoes or boots.
Hand Protection	Protective gloves.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Do not dry hands with rags that have been contaminated with product. Do not use abrasives, solvents or fuels. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical and chemical properties**

Color	colorless		
Physical State @20°C	liquid		
Odor	Hydrocarbon-like		
Odor Threshold	No information available		
<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		Not applicable	
Melting point/range		No information available	
Boiling point/boiling range	305 - 347 °C 581 - 657 °F		EN ISO 3405 EN ISO 3405
Flash point	159 °C 318 °F		ASTM D 93 ASTM D 93.
Evaporation rate		No information available	
Flammability Limits in Air			
upper	6 %		
Lower	1 %		
Vapor Pressure	< 0.001 hPa	@ 20 °C	
Vapor density		No information available	
Relative density		No information available	
Density	813 kg/m ³	@ 15 °C	ISO 12185
Water solubility		Not applicable	
Solubility in other solvents		No information available	
logPow		Not applicable	
Autoignition temperature	> 230 °C > 446 °F		ASTM E 659 ASTM E 659
Decomposition temperature		No information available	

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Viscosity, kinematic	6 mm ² /s	@ 40 °C	ISO 3104
Explosive properties	Not considered explosive based on chemical structure and oxygen balance considerations		
Oxidizing Properties	This product is not considered oxidising based on chemical structure considerations		
Possibility of hazardous reactions	None under normal processing		
Other information			
Surface tension	0.0293 N/m	@ 20 °C	EN 14370
Freezing Point	No information available		
Pour point	-2 °C		ASTM D97

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	None under normal processing.
<u>Chemical stability</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Conditions to Avoid</u>	Heat, flames and sparks. Take precautionary measures against static discharges.
<u>Incompatible Materials</u>	Strong acids. Oxidizing agents.
<u>Hazardous Decomposition Products</u>	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Information on likely routes of exposure

Principle Routes of Exposure Inhalation, Ingestion, Eye contact, Skin contact.

Numerical measures of toxicity

ATEmix (oral)	5001 mg/kg
ATEmix (dermal)	5001 mg/kg
Inhalation	
ATEmix (inhalation-dust/mist)	5.3 mg/l

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics ^	LD50 > 5000 mg/kg bw (rat - OECD 401)	LD50 (24h) > 3160 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5266 mg/m ³ (aerosol) (rat - OECD 403)

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Information on toxicological effects

Symptoms	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Skin contact	Non-irritating during normal use.
Eye contact	Burning feeling and temporary redness.
Inhalation	Vapors inhaled in strong concentration have a narcotic effect on the central nervous system.
Ingestion	If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours). Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Not classified.
Serious eye damage/eye irritation	Not classified.
Sensitization	The current toxicological knowledge allows to not classify the product as a sensitizer.
Carcinogenicity	The current toxicological knowledge allows to not classify the product as a carcinogen.
Mutagenicity	The current toxicological knowledge allows to not classify the product as a mutagen.
Reproductive toxicity	The current toxicological knowledge allows to not classify the product as a toxic to reproduction.
Target Organ Effects (STOT)	None known.
STOT-single exposure	None under normal use conditions.
STOT - repeated exposure	None under normal use conditions.
Aspiration Hazard	May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION**Ecotoxicity****Acute aquatic toxicity - Product Information**

Not applicable

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to microorganisms
Hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	ErL50 (72h) > 10000 mg/l (Skeletoneema costatum - ISO 10253)	LL50 (96h) > 1028 mg/l (Scophthalmus maximus - OECD 203)	LL50 (48h) > 3193 mg/l (Acartia tonsa - ISO 14669)	

Chronic aquatic toxicity - Product Information

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Not applicable

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics ^		NOELR (21d) > 1000 mg/l (Daphnia magna - QSAR Petrotox)	NOELR (28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	

Effects on terrestrial organisms No information available.**Persistence and degradability****General Information** Readily biodegradable (74 % after 28 days).

Biodegradation						
Type	Method	Sampling time	Specific effects	Values	Unit	Biodegradability
	OECD 306	28 days		74	%	Readily biodegradable

Bioaccumulative potential**Product Information** Measured experimental data on hydrocarbon UVCB substances are not meaningful, since each of the constituents is likely to behave differently.**logPow** Not applicable**Component Information** Not applicable.**Mobility****Soil** Substance is a UVCB. Standard tests for this endpoint are not appropriate**Other adverse effects****General Information** No information available**13. DISPOSAL CONSIDERATIONS****Waste treatment****Waste Disposal Methods** Dispose of in accordance with local regulations.**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

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14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO/IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated
<u>ADR/RID</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

Related CAS 64742-46-7

International Inventories

The substance is listed or exempted from listing in the following inventories:

- U.S.A. (TSCA)
- Canada (DSL/NDSL)
- Europe (EINECS/ELINCS/NLP)
- Australia (AICS)
- Korea (KECL)
- China (IECSC)
- Japan (ENCS)
- Philippines (PICCS)
- New Zealand (NZIoC)

U.S. 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

Acute Health Hazard	Yes
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

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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).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

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.

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

No information available

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 1	Flammability 1	Instability 0	Physical and chemical hazards -
<u>HMIS</u>	Health Hazard 1	Flammability 1	Physical Hazard 0	Personal protection X

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard

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Abbreviations, acronyms

bw = body weight
 bw/day = body weight/day
 GLP = Good Laboratory Practice
 SCBA = Self Contained Breathing Apparatus
 UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material
 LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals
 LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals
 LL = Lethal Loading
 OECD = Organization for Economic Co-operation and Development
 fw = fresh water
 mw = marine water
 or = occasional release
 dw = dry weight

Legend

Section 8
 ACGIH - American Conference of Governmental Industrial Hygienists
 OSHA - Occupational Safety and Health Administration
 NIOSH - National Institute for Occupational Safety and Health
 TLV - Threshold Limit Values
 PEL - Permissible Exposure Limits
 IDHL - Immediately Dangerous to Life or Health concentrations
 TWA - Time Weight Average
 STEL - Short Term Exposure Limits
 S* - Skin notation
 TSCA - Toxic Substance Control Act

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the safety data sheet

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