SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name Fischer-Tropsch (FT) Cold Condensate
Synonyms FT By-Product, FT light oil, Light Fischer-Tropsch oil
Use Fuel, Research & Development
Company Sasol (USA) Corporation - Tulsa Pilot Plant
Address 1820 N. 161st E. Avenue, Tulsa, OK 74116-4827
Telephone CHEMTREC North America Transportation Emergency (24-hr) (800) 424-9300
CHEMTREC World Wide (703) 527-3887
Other Emergencies (24-hr) (337) 494-5142
MSDS and Product Information (8:00am-4:30pm CST) (918) 257-2350
Health and Safety Information (7:30am-4:00pm CST) (281) 588-3492
E-mail address SasolElectronicSDS@us.sasol.com

SECTION 2 HAZARDS IDENTIFICATION

GHS Hazards
Flammable liquids Category 2
Chronic aquatic toxicity Category 2

LABEL ELEMENTS

Hazard symbols

Signal word Danger

Hazard statements H225 Highly flammable liquid and vapour.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/ eye protection/ face protection.
P273 Avoid release to the environment.
Fischer-Tropsch (FT) Cold Condensate

**Response** P303 + P361 + P353  IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P370 + P378  In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.

P391  Collect spillage.

**Storage** P403 + P235  Store in a well-ventilated place. Keep cool.

**Disposal** P501  Dispose of contents/ container to an approved waste disposal plant.

### SECTION 3  COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5-30 Paraffins</td>
<td>Mixture</td>
<td>&gt;=60</td>
</tr>
<tr>
<td>Alpha olefins (C&gt;6)</td>
<td>Mixture</td>
<td>15 - 20</td>
</tr>
<tr>
<td>Primary Alcohols (C&gt;4)</td>
<td>Mixture</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Internal olefins (C&gt;6)</td>
<td>Mixture</td>
<td>&lt;=7</td>
</tr>
<tr>
<td>Hexane</td>
<td>110-54-3</td>
<td>0.5 - 1.1</td>
</tr>
</tbody>
</table>

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

### SECTION 4  FIRST AID MEASURES

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult 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.

**Inhalation** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

**Ingestion** If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

### SECTION 5  FIREFIGHTING MEASURES

**FLAMMABLE PROPERTIES**

**Fire/explosion** Flash back possible over considerable distance. Vapours may form explosive mixture with air. Fire will produce dense black smoke containing hazardous combustion products (see section 10). NFPA Class IB flammable liquid.

**Suitable extinguishing media** Water spray, Foam, Dry chemical, Carbon dioxide (CO2)

**Protective equipment and precautions for firefighters** Wear self-contained breathing apparatus and protective suit.

**Further information** Keep containers and surroundings cool with water spray. Prevent further leakage or
Fischer-Tropsch (FT) Cold Condensate

spillage if safe to do so. Evacuate personnel to safe areas.

SECTION 6  ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up

Evacuate the area and eliminate all sources of ignition. Keep people away from and upwind of spill/leak. Use personal protective equipment. 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). If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 7  HANDLING AND STORAGE

Safe handling advice

Ensure all equipment is electrically grounded before beginning transfer operations. Keep away from heat and sources of ignition.

Storage/Transport pressure

Ambient

Load/Unload temperature

Ambient

SECTION 8  EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Air contaminant levels should be controlled below the PEL or TLV for this product (see Exposure Guidelines).

PERSONAL PROTECTIVE EQUIPMENT

Eyes

Wear as appropriate: Goggles, Face-shield

Skin

Wear suitable protective clothing, gloves and eye/face protection. Wear as appropriate: Impervious gloves

Inhalation

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES

Components

Hexane

Exposure limit(s)

OSHA PEL (Permissible Exposure Limit) 500 ppm 1,800 mg/m3
ACGIH TLV (8-hour) 50 ppm

*Skin Hazard: Skin exposure should be prevented or reduced to control skin absorption.

PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level
Fischer-Tropsch (FT) Cold Condensate

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance  liquid;
Colour        Clear, colorless, may become cloudy at low temperatures
Form         liquid
Odour        hydrocarbon-like
Odour Threshold  no data available
Flash point   < 23 °C, 74 °F; TCC;
Flammability  Upper explosion limit: no data available
              Lower explosion limit: no data available
Boiling point/boiling range  65 - 257 °C, 149 - 495 °F;
Melting point/range  no data available
Auto-ignition temperature  Not available
Decomposition temperature  no data available
Flammability (solid, gas)  no data available
Vapour pressure  no data available
Vapour density  no data available
Density        no data available
Specific gravity 0.72
Water solubility  insoluble
Viscosity      no data available
pH            no data available
Evaporation rate no data available
Partition coefficient: n-octanol/water no data available
SECTION 10  STABILITY AND REACTIVITY

Reactivity
Stable at normal ambient temperature and pressure.

Chemical stability
No decomposition if stored and applied as directed.

Conditions to avoid
Keep away from heat and sources of ignition.

Hazardous decomposition products
Carbon dioxide (CO2)  Carbon monoxide

Materials to avoid
Oxidizing agents
Reducing agents

Hazardous polymerisation
None.

SECTION 11  TOXICOLOGICAL INFORMATION

Additional Remarks
The product itself has not been tested. Information given is based on data obtained from similar substances or components of this material.

Acute dermal toxicity
no data available

Acute inhalation toxicity
Acute exposure may result in non-lethal narcotic effects and pose an aspiration hazard.

Acute oral toxicity
LD50 rat: > 2,000 mg/kg

Skin corrosion/irritation
Not irritating

Eye damage/irritation
May cause eye irritation.

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
Genotoxicity in vitro:
no data available

Genotoxicity in vivo:
no data available

Assessment Mutagenicity:
no data available

Reproductive toxicity
Reproductive toxicity:
no data available

Assessment Reproductive toxicity:
no data available
Fischer-Tropsch (FT) Cold Condensate

Teratogenicity: no data available

Assessment teratogenicity: no data available

STOT - single exposure: no data available

STOT - repeated exposure: no data available

Aspiration toxicity: no data available

Carcinogenicity: Assessment carcinogenicity:
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.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity: Toxic to aquatic life with long lasting effects.

Toxicity to fish: no data available

Toxicity to aquatic invertebrates: no data available

Toxicity to algae: no data available

Chronic toxicity to fish: no data available

Chronic toxicity to aquatic invertebrates: no data available

Biodegradation: Normal paraffins are removed by volatilization, sorption to sediments/soils and biodegradation.

Bioaccumulation: no data available

Mobility in soil: no data available

Other adverse effects: no data available

SECTION 13 DISPOSAL CONSIDERATIONS
Fischer-Tropsch (FT) Cold Condensate

**Waste Code**  
D001 - Ignitability (RQ 100 LB) This product has the RCRA characteristic of ignitability. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.

**Disposal methods**  
Dispose of only in accordance with local, state, and federal regulations. Land disposal of this product is restricted. Do not contaminate any lakes, streams, ponds, groundwater or soil.

**Empty containers.**  
Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

**SECTION 14  TRANSPORT INFORMATION**

**DOT**  
UN 3295, Hydrocarbons, liquid, n.o.s.(contains hexane, paraffins and olefins C>5), 3, II

**IATA**  
UN 3295, Hydrocarbons, liquid, n.o.s.(contains hexane, paraffins and olefins C>5), 3, II

**IMDG**  
UN 3295, Hydrocarbons, liquid, n.o.s., (contains hexane, paraffins and olefins C>5), 3, II

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks  no data available

**SECTION 15  REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS**

**OSHA Hazards (HCS 1994)**  
Irritant, Flammable

**TSCA Inventory Listing**

**Components**  
Not listed

**SARA 302 Status**

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

**SARA 311/312 Classification**

"Fire hazard"

**SARA 313 Chemical**

**Components**  
Hexane  
CAS-No. 110-54-3  
Weight percent 0.5 - 1.1 %
US. EPA CERCLA Hazardous Substances (40 CFR 302)

<table>
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<tr>
<th>Components</th>
<th>Reportable Quantity</th>
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<tr>
<td>Hexane</td>
<td>5,000 LB</td>
<td>0.5 - 1.1 %</td>
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</table>

INTERNATIONAL REGULATIONS

WHMIS Classification
Class B, Division 2: Flammable liquid.

European Union
Classification according to Regulation (EU) 1272/2008.
- Flammable liquids, Category 2
- Chronic aquatic toxicity, Category 2

Australia. Inventory of Chemical Substances (AICS)
Not listed

Japan. Inventory of Existing and New Chemical Substances (ENCS)
Not listed

Japan. Industrial Safety & Health Law (ISHL) Inventory
Not listed

Canada. Domestic Substances List (DSL) Inventory
Not listed

Canadian Non-Domestic Substance Listing (NDSL)
Not listed

European Inventory of Existing Commercial Chemical Substances (EINECS) Listing
Not listed

Philippines. Inventory of Chemicals / Chemical Substances (PICCS)
Not listed

Korea. Existing Chemicals Inventory (KECI)
Not listed

China. Inventory of Existing Chemical Substances (IECSC)
Not listed

Mexico. National Inventory of Chemical Substances (INSQ)
Not listed

New Zealand. Inventory of Chemicals (NZIoC)
Not listed

Switzerland. Inventory of Notified New Substances (CHINV)
Not listed

Taiwan. National Existing Chemical Inventory (NECI)
Not listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS

California Prop. 65

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<th>Components</th>
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Fischer-Tropsch (FT) Cold Condensate

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

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<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard/</th>
<th>Instability</th>
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<tr>
<td>HMIS®</td>
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<td>3</td>
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<td>NFPA</td>
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<td>3</td>
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