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

Trade name C1012 Normal Paraffin
Synonyms Mixture of Decane, Undecane, and Dodecane
Use Industrial use, Process material
Company Sasol Chemicals (USA) LLC
(an affiliate of Sasol Chemicals North America LLC)
Address 12120 Wickchester Lane Houston TX 77079
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) (281) 588-3491
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 4
- Aspiration hazard Category 1

LABEL ELEMENTS

Hazard symbols

Signal word Danger

Hazard statements
- H227 Combustible liquid.
- H304 May be fatal if swallowed and enters airways.

Precautionary statements

Prevention
- P210 Keep away from open flames/hot surfaces. - No smoking.
- P280 Wear protective gloves/ eye protection/ face protection.

Response
- P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P331 Do NOT induce vomiting.
SAFETY DATA SHEET

C1012 Normal Paraffin

Storage  P403 + P405 + P235  Store locked up 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>Decane</td>
<td>124-18-5</td>
<td>20 - 50</td>
</tr>
<tr>
<td>Undecane</td>
<td>1120-21-4</td>
<td>25 - 36</td>
</tr>
<tr>
<td>Dodecane</td>
<td>112-40-3</td>
<td>25 - 33</td>
</tr>
<tr>
<td>Tridecane</td>
<td>629-50-5</td>
<td>8 - 15</td>
</tr>
</tbody>
</table>

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

SECTION 4  FIRST AID MEASURES

- **Eye contact**: Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.
- **Skin contact**: If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
- **Inhalation**: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
- **Ingestion**: Do NOT induce vomiting. Consult a physician.

SECTION 5  FIREFIGHTING MEASURES

**FLAMMABLE PROPERTIES**
- **Fire/explosion**: NFPA Class IIIA combustible liquid.
- **Suitable extinguishing media**: Water spray, Foam, Dry chemical, Carbon dioxide (CO2)
- **Protective equipment and precautions for firefighters**: In the event of fire, wear self-contained breathing apparatus.
- **Further information**: Keep containers and surroundings cool with water spray.

SECTION 6  ACCIDENTAL RELEASE MEASURES
C1012 Normal Paraffin

Methods and materials for containment and cleaning up
Evacuate the area and eliminate all sources of ignition. 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).

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.

Inhalation
Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES
Contains no substances with occupational exposure limit values., Sasol Chemicals (USA) LLC recommends an internal limit of 5 mg/m3 (8-hour TWA) for exposure to mists of this product.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance
liquid;

Colour
water-white, oily

Form
liquid

Odour
Hydrocarbons

Odour Threshold
no data available

Flash point
68 °C, 156 °F; TCC;
SAFETY DATA SHEET

C1012 Normal Paraffin

Flammability
- Upper explosion limit: 7.0 % (V)
- Lower explosion limit: 0.6 % (V)

Boiling point/boiling range
- 183 - 227 °C, 363 - 441 °F;

Melting point/range
- -5 °C, 22 °F; ASTM D-2386;

Auto-ignition temperature
- 207 °C, 405 °F;

Decomposition temperature
- no data available

Flammability (solid, gas)
- no data available

Vapour pressure
- < 1 mm Hg @ 20 °C, 68 °F;

Vapour density
- 5.6

Density
- no data available

Specific gravity
- 0.748 @15 °C, 59 °F;

Water solubility
- negligible

Viscosity
- 1.2 cSt @ 40 °C, 104 °F;

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
- Combustion products include carbon dioxide, carbon monoxide and possibly other unidentified organic compounds.

Materials to avoid
- Oxidizing agents

Hazardous polymerisation
- Stable
### SECTION 11 TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dermal toxicity</td>
<td>LD50 rabbit: &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>LC50 rat (4 hours): &gt; 5.6 mg/l</td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>LD50 rat: &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Primary irritation (rabbit): 5.1 (Max. score is 8.0.)</td>
</tr>
<tr>
<td></td>
<td>Repeated exposure may cause skin dryness or cracking.</td>
</tr>
<tr>
<td>Eye damage/irritation</td>
<td>(rabbit) Not irritating</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>no data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Genotoxicity in vitro: no data available</td>
</tr>
<tr>
<td></td>
<td>Genotoxicity in vivo: no data available</td>
</tr>
<tr>
<td></td>
<td>Assessment Mutagenicity: no data available</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Reproductive toxicity: no data available</td>
</tr>
<tr>
<td></td>
<td>Assessment Reproductive toxicity: no data available</td>
</tr>
<tr>
<td></td>
<td>Teratogenicity: no data available</td>
</tr>
<tr>
<td></td>
<td>Assessment teratogenicity: no data available</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Assessment carcinogenicity: Contains no ingredient listed as a carcinogen</td>
</tr>
</tbody>
</table>
C1012 Normal Paraffin

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity Low toxicity to aquatic organisms such as bacteria, algae, protozoa and fish.

Toxicity to fish LL50 (Oncorhynchus mykiss (rainbow trout)) 96 hours
In the range of water solubility not toxic under test conditions., (literature value)

Toxicity to aquatic invertebrates EL50 (Daphnia magna (Water flea)) 48 hours
In the range of water solubility not toxic under test conditions., (literature value)

Toxicity to algae ErL50 (Pseudokirchneriella subcapitata (green algae)) 72 hours
In the range of water solubility not toxic under test conditions., (literature value)

Chronic toxicity to fish no data available

Chronic toxicity to aquatic invertebrates no data available

Biodegradation Readily biodegradable.
OECD Test Guideline 301F (28 d): 77 - 83 %
Test substance: (literature value)

Bioaccumulation no data available

Mobility in soil no data available

Other adverse effects no data available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Code Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. 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. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 262) hazardous waste regulations.

Disposal methods Dispose of only in accordance with local, state, and federal regulations.

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
C1012 Normal Paraffin

DOT  Not regulated.  Product does not sustain combustion (49 CFR 173.120(b)(3)).
IATA  Not regulated.
IMDG  Not regulated.

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)
Skin irritation, Combustible liquid.

TSCA Inventory Listing

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
</tr>
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<tbody>
<tr>
<td>Decane</td>
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<td>Tridecane</td>
<td>629-50-5</td>
</tr>
</tbody>
</table>

SARA 302 Status

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SARA 311/312 Classification
"Fire hazard", "Immediate (acute) health hazard"

SARA 313 Chemical

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

US. EPA CERCLA Hazardous Substances (40 CFR 302)

<table>
<thead>
<tr>
<th>Components</th>
<th>Reportable Quantity</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INTERNATIONAL REGULATIONS

WHMIS Classification
Class B, Division 3: Combustible liquid.
C1012 Normal Paraffin

European Union
Classification according to Regulation (EU) 1272/2008.
Aspiration hazard, Category 1
Repeated exposure may cause skin dryness or cracking.

Australia. Inventory of Chemical Substances (AICS) Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS) Listed
Japan. Industrial Safety & Health Law (ISHL) Inventory Listed
Canada. Domestic Substances List (DSL) Inventory Not listed
Canadian Non-Domestic Substance Listing (NDSL) Listed
European Inventory of Existing Commercial Chemical Substances (EINECS) Listing Listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS) Listed
Korea. Existing Chemicals Inventory (KECI) Listed
China. Inventory of Existing Chemical Substances (IECSC) Listed
Mexico. National Inventory of Chemical Substances (INSQ) Listed
New Zealand. Inventory of Chemicals (NZIoC) Listed
Switzerland. Inventory of Notified New Substances (CHINV) Listed
Taiwan. National Existing Chemical Inventory (NECI) 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
Components none

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard/Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS®</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>NFPA</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
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