SECTION 1. IDENTIFICATION

Identification of the company: Clariant Corporation
4000 Monroe Road
Charlotte, NC, 28205
Telephone No.: +1 704 331 7000

Information of the substance/preparation:
Product Safety 1-704-331-7710
Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: LICOLUB WE 40 P
Material number: 107007
CAS number: 73246-99-8
Primary product use: Industrial uses are not restricted by REACH legislation.
Chemical family: Reaction mass of montan wax and fatty acids, montan-wax, mixed esters with adipic acid and trimethylolpropane and fatty acids, montan-wax and fatty acids, montan-wax, esters with trimethylolpropane

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Combustible dust

GHS Label element
Signal word: Warning
Hazard statements: May form combustible dust concentrations in air
Precautionary statements: Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take precautionary measures against static discharge.
P233 Keep container tightly closed.

Other hazards
Does not require a hazard warning label, but the normal safety precautions for handling chemicals must be observed.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Not Assigned</td>
<td>100</td>
</tr>
</tbody>
</table>
SECTION 4. FIRST AID MEASURES

General advice  :  Get medical advice/ attention if you feel unwell.

If inhaled  :  Move the victim to fresh air.  Give oxygen or artificial respiration if needed.  Get immediate medical advice/ attention.  Never give anything by mouth to an unconscious person.

In case of skin contact  :  Wash thoroughly with soap and water for 15 minutes.  If skin irritation occurs, seek medical attention.

In case of eye contact  :  Flush eyes with water at least 15 minutes.  Get medical attention if eye irritation develops or persists.

If swallowed  :  If conscious, give the victim plenty of water to drink.  Consult a physician.  Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed  :  The possible symptoms known are those derived from the labelling (see section 2).  No additional symptoms are known.

Notes to physician  :  None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media  :  Foam  Water spray jet  Dry powder

Unsuitable extinguishing media  :  High volume water jet  Carbon dioxide (CO2)

Specific hazards during firefighting  :  None known.

Further information  :  Electrical grounding of equipment is required to prevent possible dust explosion.  Emits toxic fumes under fire conditions.

Special protective equipment for firefighters  :  Wear personal protective equipment.  In the event of fire, wear self-contained breathing apparatus.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Wear suitable protective equipment.
- Collect into suitable container. Electrical grounding of equipment is required when handling powder to prevent possible dust explosion.

Environmental precautions:
- The product should not be allowed to enter drains, water courses or the soil.

Methods and materials for containment and cleaning up:
- Take up mechanically
- Avoid dust formation.
- Take measures to prevent the build up of electrostatic charge.
- Risk of dust explosion.
- Treat recovered material as described in the section "Disposal considerations".

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion:
- Take precautionary measures against build-up of electrostatic charges, e.g. earthing during loading and off-loading operations. Keep away sources of ignition. Dust can form an explosive mixture in air.

Advice on safe handling:
- Avoid inhalation, ingestion and contact with skin and eyes.
- Wash thoroughly after handling.
- Avoid dust formation. Keep away from sources of ignition.
- Lead off electrostatic charges.

Technical measures/Precautions:
- Store in original container.
- Keep container tightly closed.
- Store in a cool, dry, well-ventilated area.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures:
- Use adequate exhaust ventilation and/or dust collection to keep dust levels below exposure limits.

Personal protective equipment

Respiratory protection:
- Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Hand protection

Remarks:
- Butyl Rubber, PVC Or Neoprene.

Eye protection:
- Safety glasses or chemical splash goggles.
Skin and body protection: Wear suitable protective equipment.

Protective measures: Observe the usual precautions for handling chemicals.

Hygiene measures: Wash hands before breaks and at the end of workday. When using do not eat, drink or smoke. Use protective skin cream before handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: powder

Colour: yellow

Odour: not specified

Odour Threshold: cannot be determined

pH: approx. 7, (20 °C)saturated aqueous solution

Melting point: approx. 44 °C
  Method: DSC

  approx. 66 °C
  Method: DSC
  Data relate to the main peak.

Boiling point: Decomposes below the boiling point.

Flash point: Not applicable

Evaporation rate: Not applicable

Flammability (solid, gas): The product is not flammable.
  Method: Other

Upper explosion limit: not tested.

Lower explosion limit: not tested.

Vapour pressure: 0.034 mPa (25 °C)
  GLP: yes

Relative vapour density: Not applicable

Relative density: 1.022 (23 °C)
  Method: ISO 1183

Density: 1.022 g/cm3 (20 °C)
Solubility(ies)

Water solubility: 45 mg/l (20 °C)
  Method: OECD Test Guideline 105

Solubility in other solvents: not tested.

Partition coefficient: n-octanol/water
  log Pow: < 1 (20 °C)
  pH: 5.6 - 5.8
  Method: other (calculated)

Auto-ignition temperature: 420 °C

Decomposition temperature: approx. 201 °C
  Method: DSC

Viscosity
  Viscosity, dynamic: Not applicable
  Viscosity, kinematic: Not applicable

Explosive properties: There are no chemical groups associated with explosive properties present in the molecule.

Oxidizing properties: The substance or mixture is not classified as oxidizing. There are no chemical groups associated with oxidising properties present in the molecule. Not oxidizing

Impact sensitivity: Not impact sensitive.
  Method: Other guidelines

Surface tension: 64.7 mN/m, 20 °C, 92/69/EC (L383) A.5 * Surface tension

Sublimation point: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Potential dust explosion hazard. The substance or mixture does not emit flammable gases in contact with water. Not corrosive to metals

Conditions to avoid: Keep away from heat. Keep away from flames and sparks.
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: When handled and stored appropriately, no dangerous decomposition products are known

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Eye contact
Skin contact
Inhalation

Acute toxicity
Product:
Acute oral toxicity: LD50 (Rat, male and female): > 2,000 mg/kg
   Method: OECD Test Guideline 401
   GLP: yes

Acute inhalation toxicity: Remarks: not required

Acute dermal toxicity: LD50 (Rat, male and female): > 2,000 mg/kg
   Method: OECD Test Guideline 402
   GLP: yes
   Remarks: By analogy with a product of similar composition

Skin corrosion/irritation
Product:
Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes
Remarks: By analogy with a product of similar composition

Serious eye damage/eye irritation
Product:
Species: Rabbit eye
Result: No eye irritation
Exposure time: 72 h
Method: OECD Test Guideline 405
GLP: yes
Remarks: By analogy with a product of similar composition

Respiratory or skin sensitisation
Product:
Test Type: Mouse local lymphnode assay
Exposure routes: Dermal
Species: Mouse  
Method: OECD Test Guideline 429  
Result: non-sensitizing  
GLP: yes  
Remarks: By analogy with a product of similar composition

**Germ cell mutagenicity**

**Product:**

Genotoxicity in vitro:

- **Test Type:** Ames test  
  Species: Salmonella typhimurium  
  Concentration: 4 - 10000 µg/plate  
  Metabolic activation: with and without  
  Method: OECD Test Guideline 471  
  Result: negative  
  GLP: yes  
  Remarks: By analogy with a product of similar composition

- **Test Type:** Ames test  
  Species: Escherichia coli  
  Concentration: 4 - 10000 µg/plate  
  Metabolic activation: with and without  
  Method: OECD Test Guideline 471  
  Result: negative  
  GLP: yes  
  Remarks: By analogy with a product of similar composition

- **Test Type:** Chromosome Aberration Test  
  Species: V79 cells (embryonic lung fibroblasts) of the Chinese hamster  
  Concentration: 1.2 - 300 µg/ml  
  Metabolic activation: with and without  
  Method: OECD Test Guideline 473  
  Result: negative  
  GLP: yes  
  Remarks: By analogy with a product of similar composition

- **Test Type:** HGPRT assay  
  Species: V79 cells (embryonic lung fibroblasts) of the Chinese hamster  
  Concentration: 3 - 1000 µg/ml  
  Metabolic activation: with and without  
  Method: OECD Test Guideline 476  
  Result: negative  
  GLP: yes  
  Remarks: By analogy with a product of similar composition

**Germ cell mutagenicity - Assessment:**  
It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.
Carcinogenicity - Assessment: Animal testing did not show any carcinogenic effects.

IARC: Not listed
OSHA: Not listed
NTP: Not listed

Reproductive toxicity

Product:

Effects on fertility: Test Type: One generation study
Species: Rat
Sex: male and female
Dose: 10 - 100 - 1000 mg/kg
Frequency of Treatment: once daily
Sprague-Dawley
49 - 52 d
14 d
Group: yes
NOAEL: 1,000 mg/kg, F1: 1,000 mg/kg,
Method: OECD 421
GLP: yes
Remarks: By analogy with a product of similar composition

Effects on foetal development: Species: Rat
Application Route: oral (gavage)
Exposure time: females day 6-19 post coitum
Dose: 50 - 250 - 1000 mg/kg
Group: yes
1,000 mg/kg
1,000 mg/kg
Number of exposures: once daily
Method: OECD Test Guideline 414
GLP: yes
Remarks: By analogy with a product of similar composition

Reproductive toxicity - Assessment: No teratogenic effects to be expected.

No reproductive toxicity to be expected.

STOT - single exposure

Product: Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Repeated dose toxicity**

**Product:**
Species: Rat, male and female  
NOAEL: 1,000 mg/kg  
Application Route: oral (gavage)  
Exposure time: >70 d  
Number of exposures: once daily  
Dose: 10 - 100 - 1000 mg/kg  
Group: yes  
Method: OECD Test Guideline 422  
GLP: yes  
Remarks: By analogy with a product of similar composition

Application Route: Inhalation  
Method: Repeated dose toxicity  
Remarks: The study is not necessary from a scientific perspective.

Application Route: Dermal  
Method: Repeated dose toxicity  
Remarks: The study is not necessary from a scientific perspective.

**Aspiration toxicity**

**Product:**
No aspiration toxicity classification

**Experience with human exposure**

**Product:**
General Information: The possible symptoms known are those derived from the labelling (see section 2).

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**
Toxicity to fish: LC50 (Danio rerio (zebra fish)): > 10 g/l  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 203  
GLP: yes  
Remarks: By analogy with a product of similar composition  
The details of the toxic effect relate to the nominal concentration.
NOEC (Danio rerio (zebra fish)): 10 g/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 203
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates:
EC10 (Daphnia magna (Water flea)): > 10.1 - 100 mg/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 202
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

EC50 (Daphnia magna (Water flea)): > 10 g/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 202
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

Toxicity to algae:
EC10 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 320 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

EC20 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 320 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.
EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 320 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

EC10 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 100 - 320 mg/l
End point: Biomass
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

EC20 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 320 mg/l
End point: Biomass
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 320 mg/l
End point: Biomass
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition
The details of the toxic effect relate to the nominal concentration.

Toxicity to fish (Chronic toxicity) : Remarks: not required

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l
<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
</table>
| **Aquatic invertebrates**        | Exposure time: 21 d  
End point: Reproduction rate  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 211  
GLP: yes  
Remarks: The details of the toxic effect relate to the nominal concentration.  
NOEC (Daphnia magna (Water flea)): \( > = 100 \text{mg/l} \)  
Exposure time: 21 d  
End point: Reproduction rate  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 211  
GLP: yes  
Remarks: The details of the toxic effect relate to the nominal concentration. |
| **Toxicity to bacteria**         | NOEC (activated sludge, domestic): 1,000 mg/l  
End point: Bacteria toxicity (respiration inhibition)  
Exposure time: 3 h  
Test Type: aquatic  
Analytical monitoring: no  
Method: OECD Test Guideline 209  
GLP: yes  
Remarks: The details of the toxic effect relate to the nominal concentration. |
| **Toxicity to soil dwelling**    | Organisms  
NOEC (Eisenia fetida (earthworms)): 1,000 mg/kg  
Exposure time: 14 d  
End point: mortality  
Method: OECD Test Guideline 207  
GLP: yes  
Remarks: By analogy with a product of similar composition  
Test Type: artificial soil  
LOEC (Eisenia fetida (earthworms)): > 1,000 mg/kg  
Exposure time: 14 d  
End point: mortality  
Method: OECD Test Guideline 207  
GLP: yes  
Remarks: By analogy with a product of similar composition  
Remarks: The study is not necessary from a scientific perspective. |
| **Plant toxicity**               | Remarks: The study is not necessary from a scientific perspective. |
| **Sediment toxicity**           | Remarks: not tested. |
**Persistence and degradability**

**Product:**

- **Biodegradability:**
  - Test Type: aerobic
  - Inoculum: activated sludge, domestic, non-adapted
  - Concentration: 4.46 mg/l
  - BOD in % of theoretical OD
  - Result: Inherently biodegradable.
  - Biodegradation: 59.7 % (BOD in % of theoretical OD)
  - Exposure time: 28 d
  - Method: OECD Test Guideline 301D
  - GLP: yes
  - Remarks: By analogy with a product of similar composition

- **Physico-chemical removability:**
  - Remarks: The product is not readily biodegradable according to OECD criteria but is inherently biodegradable.

- **Stability in water:**
  - Remarks: Not applicable

**Bioaccumulative potential**

**Product:**

- **Bioaccumulation:**
  - Remarks: Low potential for bioaccumulation (log Pow < 3).

**Mobility in soil**

**Product:**

- **Distribution among environmental compartments:**
  - Remarks: Not expected to adsorb on soil.

**Other adverse effects**

**Product:**

- **Environmental fate and pathways:**
  - Remarks: not available

- **Results of PBT and vPvB assessment:**
  - The substance is not identified as a PBT or as a vPvB substance.

- **Additional ecological information:**
  - The product should not be allowed to enter drains, water courses or the soil.

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

- **RCRA - Resource Conservation and Recovery Authorization Act:**
  - No -- Not as sold.

- **Waste from residues:**
  - Dispose of spilled or waste product, contaminated soil and other contaminated materials in licensed landfill or treatment facility in accordance with all local, state, and federal regulations.
Contaminated packaging: Packaging that cannot be cleaned should be disposed of as product waste.

SECTION 14. TRANSPORT INFORMATION

DOT: not restricted
IATA: not restricted
IMDG: not restricted

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: No SARA Hazards
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313: This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act
Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:
TSCA: On TSCA Inventory

Inventories
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information
On the basis of an extensive test program, which had to be submitted to the competent authority on the occasion of the Notification of the substance in the European Community, this product was found to be toxicologically not dangerous within the meaning of the EC Directives.

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Revision Date : 04/29/2015

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.

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