SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 500 East Morehead Street Charlotte, NC, 28202 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Stewardship, +1-704-331-7710 e-mail: SDS.NORAM@clariant.com **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**LICOLUB WE 60 FL**
Material number:	278537
CAS number:	85116-93-4
Chemical family:	Fatty acids, C16-18, esters with pentaerythritol

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

GHS label elements

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

No additional hazards are known except those derived from the labelling.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Substance name : Fatty acids, C16-18, esters with pentaerythritol

CAS-No. : 85116-93-4

Components

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

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	:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if irritation develops and 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. The possible risks known are those derived from the labelling (see section 2).
Notes to physician	:	Treat symptomatically.

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	:	Wear suitable protective equipment.
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.
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 Take measures to prevent the build up of electrostatic charge. Treat recovered material as described in the section "Disposal considerations". Avoid dust formation. Risk of dust explosion.

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 dust formation. Keep away from sources of ignition. Lead off electrostatic charges. Avoid inhalation, ingestion and contact with skin and eyes. Wash thoroughly after handling. Use personal protective equipment. Avoid breathing dust. Avoid contact with skin and eyes. Wash thoroughly after handling. Store in a dry place. Keep away from heat. Store in original container. Keep container tightly closed.
Further information on storage conditions	:	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

Contains no substances with occupational exposure limit values.

Engineering measures : A system of local and/or general exhaust is recommended where employee exposures are at or above Occupational Exposure Limits (OEL).

Personal protective equipment

Respiratory protection : Wear NIOSH approved particulate filtering respirator rated N, R, or P95 or 100 or equivalent in the absence of proper environmental control. Type of respirator depends on level of exposure.

Hand protection
Remarks : Butyl Rubber, PVC Or Neoprene.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear protective clothing, including long sleeves and gloves, to prevent skin contact.

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 : flakes

Colour : white

Odour : not specified

Odour Threshold : not determined

pH : ca. 6 (68 °F / 20 °C)
Method: Aqueous solution

Drop point : ca. 140 °F / 60 °C
Method: DIN/ISO 2176

Boiling point : Decomposition: Decomposes below the boiling point.
Method: DTA

Evaporation rate : no data available

Flammability (solid, gas) : does not ignite

Self-ignition : Method: Expert judgement

		The substance or mixture is not classified as pyrophoric. > 824 °F / > 440 °C Method: VDI 2263 (Grewer) The substance or mixture is not classified as self heating. 302 °F / 150 °C Method: VDI 2263 (Grewer) The sample was mixed 1:1 with diatomaceous earth. No autoignition in the absence of diatomaceous earth.
Burning number	:	1 Method: VDI 2263, ESCIS, Vol. 1 Does not catch fire
Upper explosion limit / upper flammability limit	:	no data available
Lower explosion limit / Lower flammability limit	:	no data available
Vapour pressure	:	< 0.1 Pa (68 °F / 20 °C) Decomposition: Decomposes below the boiling point. Method: calculated
Relative vapour density	:	no data available
Density	:	0.992 g/cm3 (73 °F / 23 °C) Method: ISO 1183
Solubility(ies)		
Water solubility	:	< 0.353 mg/l (68 °F / 20 °C) pH: 6 Method: EEC L251,A.6. Flask meth. 1984 GLP: yes
Partition coefficient: n-octanol/water	:	log Pow: 30.81 Method: calculated
Decomposition temperature	:	The substance or mixture is not classified self-reactive. Heating rate: 3 K/min Method: DSC No decomposition up to 300 °C.
Viscosity		
Viscosity, dynamic	:	ca. 13 mPa.s (212 °F / 100 °C) Method: DIN 53019
Viscosity, kinematic	:	no data available
Dust deflagration index (Kst)	:	80 m.b_/s

Dust explosion class	:	St1
Minimum ignition energy	:	1,000 mJ (68 °F / 20 °C) Method: EN 13821 / ASTM E2019-03 with inductive electrical resistance
Particle size	:	379 µm Method: Laser diffraction with dispersion in dry air. Median value

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable
Possibility of hazardous reactions	:	Reactions with strong oxidising agents. Dust can form an explosive mixture in air. Stable
Conditions to avoid	:	Keep away from open flames, hot surfaces and sources of ignition. Avoid dust formation. Dust may form explosive mixture in air.
Incompatible materials	:	none
Hazardous decomposition products	:	No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Eye contact
Skin contact

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 423 GLP: yes Remarks: By analogy with a product of similar composition No adverse effect has been observed in acute toxicity tests.
Acute inhalation toxicity	:	Acute toxicity estimate: 5.25 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402

GLP: No information available.
Remarks: By analogy with a product of similar composition
No adverse effect has been observed in acute toxicity tests.

Skin corrosion/irritation

Product:

Species: Rabbit
Exposure time: 24 - 72 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: No information available.
Remarks: By analogy with a product of similar composition

Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: No eye irritation
Exposure time: 24 h
Method: OECD Test Guideline 405
GLP: yes

Respiratory or skin sensitisation

Product:

Test Type: Maximisation Test
Exposure routes: Dermal
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Not a skin sensitizer.
GLP: No information available.
Remarks: By analogy with a product of similar composition

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: No information available.
Remarks: By analogy with a product of similar composition

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: No information available.

Test Type: In vitro gene mutation study in mammalian cells
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: No information available.
Remarks: By analogy with a product of similar composition

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Strain: CD1
Cell type: Erythrocytes
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects, In vivo tests did not show mutagenic effects

Carcinogenicity

Product:

Carcinogenicity - Assessment : No information available.

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Product:

Effects on foetal development : Test Type: reproductive and developmental toxicity study
Species: Rat, female
Strain: Other
Application Route: oral (gavage)
Dose: 100, 50, and 100 mg/kg bw/day
Duration of Single Treatment: 9 d
Frequency of Treatment: 1 daily
General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight
Embryo-foetal toxicity: NOAEL: >= 1,000 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes

Remarks: By analogy with a product of similar composition

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

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: 12500 mg/kg bw/day
Application Route: oral (feed)
Exposure time: 28 d
Number of exposures: daily
Dose: 1000, 5000, 12500 ppm in diet
Group: yes
Method: OECD Test Guideline 407
GLP: yes
Remarks: By analogy with a product of similar composition

Species: Rat, male and female
NOAEC: 0.5 mg/l
Application Route: inhalation (dust/mist/fume)
Exposure time: 13 weeks
Number of exposures: 6 hours/day 5 days/week
Dose: 0.05, 0.15 and 0.5 mg/L
Method: OECD Test Guideline 413
GLP: No information available.
Remarks: By analogy with a product of similar composition

Species: Rat, male and female
NOAEL: > 2000 mg/kg bw/day
Application Route: Dermal
Exposure time: 13 weeks
Number of exposures: 24 hours/day 5 days/week
Dose: 2000 mg/kg bw/day
Method: OECD Test Guideline 411
GLP: No information available.
Remarks: By analogy with a product of similar composition

Aspiration toxicity

Product:

no data available

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 (Cyprinus carpio (Carp)): > 100 mg/l
End point: mortality
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes
Remarks: By analogy with a product of similar composition
No toxicity at the limit of solubility
The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Method: Regulation (EC) No. 440/2008, Annex, C.2
GLP: No information available.
Remarks: By analogy with a product of similar composition
No toxicity at the limit of solubility

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (algae)): > 100 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes
Remarks: By analogy with a product of similar composition
WAF (Water accommodated fraction)
No toxicity at the limit of solubility

Toxicity to fish (Chronic toxicity) : Remarks: no data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEL (Daphnia magna (Water flea)): >= 1 mg/l
End point: Reproduction rate
Exposure time: 21 d

Test Type: semi-static test
Method: OECD Test Guideline 211
GLP: No information available.
Remarks: No toxicity at the limit of solubility
By analogy with a product of similar composition

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 10,000 mg/l
End point: Growth rate
Exposure time: 16 h
Test Type: static test
Method: ISO/DIS 10712.2 (Ref 3)
GLP: yes
Remarks: By analogy with a product of similar composition

Toxicity to soil dwelling organisms : Test Type: artificial soil
NOEC (Eisenia fetida (earthworms)): >= 1,000 mg/kg
Exposure time: 14 d
End point: mortality
Method: OECD Test Guideline 207
GLP: No information available.
Remarks: By analogy with a product of similar composition

Persistence and degradability

Product:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Concentration: 15.5 mg/l
Result: Readily biodegradable.
Biodegradation: 71.9 - 99.8 % (Carbon dioxide (CO2))
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes
Remarks: By analogy with a product of similar composition

Bioaccumulative potential

Product:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 24.68
Method: Other
GLP: no
Remarks: By analogy with a product of similar composition

Mobility in soil

Product:

Distribution among environmental compartments : Adsorption/Soil
Medium: Soil
Koc: 1778.28 ml/g, log Koc: 3.25
Method: Other
Remarks: By analogy with a product of similar composition

Adsorption/Soil
Medium: Soil
log Koc: 19.81
Method: Other
Remarks: By analogy with a product of similar composition

Other adverse effects

Product:

Additional ecological information : There is no data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : This product, if discarded as sold, is not a Federal RCRA hazardous waste.

Waste Code : NONE

Waste from residues : Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled after solidification in permitted systems.

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

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 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust

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.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

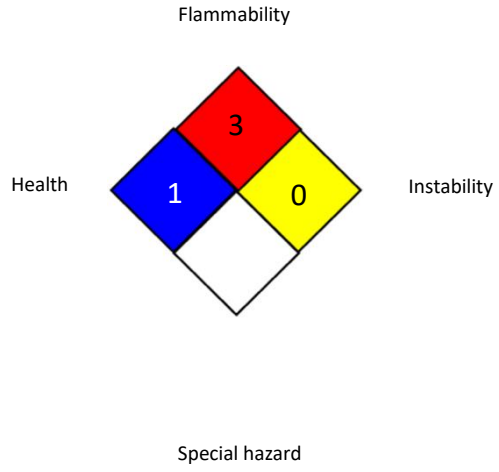
The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

For additional information, contact Product Stewardship.

Revision Date : 11/01/2021

with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

US / EN