

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance (UVCB)
Trade name	: RADIACID 0983
IUPAC name	: Fatty acids, C18-unsatd., trimers
EC no.	: 500-239-5
CAS No.	: 68937-90-6
REACH registration No.	: 01-2119491290-41
C&L notification reference no	: 02-2119692911-30-0000

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category	: Industrial use
-------------------	------------------

Title	Life cycle stage	Use descriptors
General overview of industrial uses of dimerized fatty acids consortium related substances	Industrial	SU0, SU1, SU3, SU5, SU6b, SU8, SU9, SU10, SU11, SU12, SU17, SU18, SU19, SU23, PC19, PC20, PC21, PC36, PC37, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC12, PROC13, PROC14, PROC15, PROC16, PROC17, PROC19, PROC21, PROC24, ERC1, ERC2, ERC3, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ERC8a, ERC8b, ERC8c, ERC8d, ERC8f, ERC10a, ERC10b, ERC11a
General overview of professional uses of dimerized fatty acids related substances	Professional	SU0, SU1, SU8, SU9, SU10, SU22, PC8, PC20, PC21, PC27, PC36, PC37, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC16, PROC17, PROC19, PROC20, PROC21, ERC2, ERC4, ERC5, ERC7, ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b
General overview of consumer uses of dimerized fatty acids related substances	Consumer	SU21, PC1, PC3, PC4, PC8, PC9a, PC9b, PC9c, PC12, PC13, PC18, PC23, PC24, PC27, PC31, PC35, PC36, PC37, PC39, ERC2, ERC7, ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b, ERC11a

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

OLEON N.V.
Assenedestraat 2
BE 9940 Ertvelde
Belgium
T +32 9 341 10 11, F +32 9 341 10 00
sds@oleon.com, www.oleon.com

1.4. Emergency telephone number

Emergency number : 24/7 EMERGENCY NUMBER (SGS ERS; Oleon contract nr 76858)
+32 3 575 55 55 (worldwide); +1 888 765 6554 (USA tollfree)

Country	Organisation/Company	Address	Emergency number	Comment
	World directory of poisons centres (Yellow Tox) WHO-OMS	Website	http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Other hazards which do not result in classification : None under normal conditions.

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : UVCB

Name	Product identifier	%
Fatty acids, C18-unsatd., trimers	CAS No.: 68937-90-6 EC no.: 500-239-5 REACH-no: 01-2119491290-41	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove victim to fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. If irritation persists, consult a doctor.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Consult an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth thoroughly with water. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: No supplementary information available.
Symptoms/effects after inhalation	: On heating: Irritation of the respiratory tract.

4.3. Indication of any immediate medical attention and special treatment needed

No supplementary information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: AFFF foam. BC-powder. Carbon dioxide. Dry sand. Dry chemical powder. Use the extinguishing media recommended for the burning materials and fire situation.
Unsuitable extinguishing media	: Do not use a water jet since it may cause the fire to spread.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD: Combustible. INDIRECT FIRE HAZARD: Heating increases the fire hazard. Temperature above flashpoint: higher fire/explosion hazard.
Explosion hazard	: DIRECT EXPLOSION HAZARD: Fine dust dispersed in air may ignite. INDIRECT EXPLOSION HAZARD: Dust cloud can be ignited by a spark.
Reactivity in case of fire	: On burning: release of carbon monoxide/carbon dioxide.

5.3. Advice for firefighters

Other information	: No supplementary information available.
-------------------	---

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Mark the danger area. Caution : this product can cause the floor to be slippery. Wash contaminated clothing before reuse. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
------------------	---

6.1.1. For non-emergency personnel

Protective equipment	: See "Material-Handling" to select protective clothing.
----------------------	--

6.1.2. For emergency responders

Protective equipment	: For further information refer to section 8: "Exposure controls/personal protection".
----------------------	--

6.2. Environmental precautions

Prevent soil and water pollution. Do not allow product to spread into the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Knock down/dilute dust cloud with water spray.
Methods for cleaning up	: Spills of this product present a serious slipping hazard. If melted: allow liquid to solidify before taking it up. Sweep or shovel spills into appropriate container for disposal. Clean contaminated surfaces with a soap solution. Flush/dilute with water. Clear up spills immediately and dispose of waste safely.
Other information	: No supplementary information available.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Handling temperature	: $\geq 10\text{ }^{\circ}\text{C}$ above melting point
----------------------	---

7.2. Conditions for safe storage, including any incompatibilities

Information on mixed storage	: KEEP AWAY FROM: Acids. strong acids. bases. strong bases.
Storage area	: Keep container in a well-ventilated place. Store at ambient temperature. Keep out of direct sunlight. Meet the legal requirements.
Special rules on packaging	: Store in a closed container. Suitably labelled. Meet the legal requirements.
Packaging materials	: Suitable materials for containers. Aluminium. Glass. Stainless steel. Do not store in corrodable metal.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.1.1 National occupational exposure and biological limit values**

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls**8.2.1. Appropriate engineering controls**

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

Other skin protection

Materials for protective clothing:

Good resistance: Nitrile rubber

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Amber.
Appearance (room temperature)	: Viscous.
Odour	: Characteristic. Mild odor.
Odour threshold	: Not available
Melting point	: < 0 °C
Freezing point	: Not available
Boiling point	: > 250 °C
HMIS Flammability	: Not available
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidising.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 350 °C (ASTM D92)
Auto-ignition temperature	: > 300 °C
Decomposition temperature	: > Flash point
pH	: < 7
Viscosity, kinematic	: Not available
Viscosity, dynamic	: ca. 60000 cP @25°C (30000-90000)
Solubility	: Water: < 0.005 g/100ml (25°C)
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: > 6 (literature)

Vapour pressure	: < 0.01 hPa (20°C)
Vapour pressure at 50 °C	: Not available
Density	: ca. 960 kg/m ³ (20°C)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content	: < 1 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)
Other properties	: Poorly soluble in water, Soluble in oils/fats, Soluble in most organic solvents

SECTION 10: Stability and reactivity

10.1. Reactivity

On burning: release of carbon monoxide/carbon dioxide.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No supplementary information available.

10.5. Incompatible materials

No supplementary information available.

10.6. Hazardous decomposition products

No supplementary information available.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

RADIACID 0983 (68937-90-6)

LD50 oral rat	> 2000 mg/kg Non-toxic
Skin corrosion/irritation	: Not classified pH: < 7
Serious eye damage/irritation	: Not classified pH: < 7

Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

RADIACID 0983 (68937-90-6)

Viscosity, kinematic	ca. 62500 mm ² /s
----------------------	------------------------------

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: The substance/mixture has no endocrine disrupting properties.
--	---

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Ecology - air	: No supplementary information available.
Ecology - water	: No bioaccumulation data available
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

RADIACID 0983 (68937-90-6)

ThOD	2.9 g O ₂ /g substance
------	-----------------------------------

12.3. Bioaccumulative potential

RADIACID 0983 (68937-90-6)

Partition coefficient n-octanol/water (Log Pow)	> 6 (literature)
---	------------------

12.4. Mobility in soil

RADIACID 0983 (68937-90-6)

Surface tension	ca. 0.03 N/m (20°C)
-----------------	---------------------

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal : No supplementary information available
Regional waste regulation : No supplementary information available.
Ecological waste information : Do not discharge into drains or the environment. Remove to an authorized waste treatment plant.
European List of Waste (LoW, EC 2000/532) : No supplementary information available

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable
UN-No. (ADN) : Not applicable
UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : -

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : Marine pollutant: no

14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : Not subject

Transport by sea

Transport regulations (IMDG) : Not subject

Air transport

No data available

Inland waterway transport

No data available

Rail transport

Transport regulations (RID) : Not subject

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

VOC Directive (2004/42)

VOC content : < 1 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Chemical inventories	: Compliant with AIIIC, DSL, EAEU, ECST, ENCS, EU REACH, IECSC, ISHL, KECL, NZIoC, PICCS, TSCA, VNCI
KKDIK number (Turkey)	: 05-0000212393-85-0000
K-REACH (Korea)	: not preregistered
UK-REACH (Great Britain)	: DUIN submitted

Germany

Water hazard class (WGK)	: WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 2724).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category	: B(4) - low hazard for aquatic organisms
SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: The substance is not listed

15.2. Chemical safety assessment

The chemical safety assessment has been carried out, an exposure scenario is not applicable (substance is not classified).

SECTION 16: Other information

Training advice : No supplementary information available.

Chem. inventories legend

- : AIIC = Australian Inventory of Industrial Chemicals
 - DSL = Canadian Domestic Substances List
 - EAEU = Eurasian Economic Union Unified list of chemicals
 - ECST = Existing Chemical Substances Inventory of Taiwan
 - ENCS = Japanese Existing and New Chemicals Substances List
 - EU REACH = European Union REACH Regulation 1907/2006
 - IECSC = Inventory of Existing Chemicals Substances in China
 - ISHL = Japanese Industrial Safety and Health Law Substances
 - KECL = Korean Existing Chemical List
 - NZIoC = New Zealand Inventory of Chemicals
 - PICCS = Philippine Inventory of Chemicals and Chemical Substances
 - TSCA (Active) = USA Toxic Substances Control Act
 - VNCI = Vietnam National Chemicals Inventory
- SDS changed sections : 11 - Toxicological information; 12 - Ecological information
- SDS Reason for revision : No supplementary information available
- Other information : No supplementary information available.

Full text of use descriptors	
ERC1	Manufacture of the substance
ERC10a	Widespread use of articles with low release (outdoor)
ERC10b	Widespread use of articles with high or intended release (outdoor)
ERC11a	Widespread use of articles with low release (indoor)
ERC2	Formulation into mixture
ERC3	Formulation into solid matrix
ERC4	Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC5	Use at industrial site leading to inclusion into/onto article
ERC6a	Use of intermediate
ERC6b	Use of reactive processing aid at industrial site (no inclusion into or onto article)
ERC6c	Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)
ERC6d	Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)
ERC7	Use of functional fluid at industrial site
ERC8a	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC8c	Widespread use leading to inclusion into/onto article (indoor)
ERC8d	Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
ERC8e	Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
ERC8f	Widespread use leading to inclusion into/onto article (outdoor)
ERC9a	Widespread use of functional fluid (indoor)
ERC9b	Widespread use of functional fluid (outdoor)
PC1	Adhesives, sealants
PC12	Fertilizers

Full text of use descriptors

PC13	Fuels
PC18	Ink and Toners
PC19	Intermediate
PC20	Metal surface treatment products
PC21	Laboratory chemicals
PC23	Leather treatment products
PC24	Lubricants, greases, release products
PC27	Plant protection products
PC3	Air care products
PC31	Polishes and wax blends
PC35	Washing and cleaning products
PC36	Water softeners
PC37	Water treatment chemicals
PC39	Cosmetics, personal care products
PC4	Anti-Freeze and De-icing products
PC8	Biocidal products
PC9a	Coatings and paints, thinners, paint removers
PC9b	Fillers, putties, plasters, modelling clay
PC9c	Finger paints
PROC10	Roller application or brushing
PROC11	Non industrial spraying
PROC12	Use of blowing agents in manufacture of foam
PROC13	Treatment of articles by dipping and pouring
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent
PROC16	Use of fuels
PROC17	Lubrication at high energy conditions in metal working operations
PROC19	Manual activities involving hand contact
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC20	Use of functional fluids in small devices
PROC21	Low energy manipulation and handling of substances bound in/on materials or articles
PROC24	High (mechanical) energy work-up of substances bound in /on materials and/or articles
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

Full text of use descriptors

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC6	Calendering operations
PROC7	Industrial spraying
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
SU0	Other
SU1	Agriculture, forestry, fishery
SU10	Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU11	Manufacture of rubber products
SU12	Manufacture of plastics products, including compounding and conversion
SU17	General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU18	Manufacture of furniture
SU19	Building and construction work
SU21	Consumer uses: Private households (= general public = consumers)
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU23	Electricity, steam, gas water supply and sewage treatment
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
SU5	Manufacture of textiles, leather, fur
SU6b	Manufacture of pulp, paper and paper products
SU8	Manufacture of bulk, large scale chemicals (including petroleum products)
SU9	Manufacture of fine chemicals

The classification complies with : ATP 8

SDS EU Oleon Annex II

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.