RADIAMULS MG 2921K

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	:	Substance (UVCB)
Trade name	:	RADIAMULS MG 2921K
IUPAC name	:	Glycerides, C16-18 (even numbered) mono-
EC no.	:	293-208-8
CAS No.	:	91052-47-0
REACH registration No.	:	01-2119492308-31
C&L notification reference no	:	02-2119692866-17-0000
Label name	:	Monoglycerides, distilled

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

Relevant identified uses

Main use category	:	Industrial use
Use of the substance/mixture	:	Fit for use in foodstuffs

Title	Life cycle stage	Use descriptors
General overview of industrial uses of glycerol fatty esters	Industrial	SU0, SU1, SU2a, SU2b, SU3, SU4, SU6b, SU8, SU9, SU10, SU11, SU12, SU14, SU15, SU17, SU20, SU23, PC0, PC1, PC9a, PC12, PC14, PC17, PC18, PC19, PC21, PC24, PC25, PC28, PC29, PC32, PC35, PC39, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC12, PROC13, PROC14, PROC15, PROC17, PROC19, PROC21, PROC24, AC10, ERC1, ERC2, ERC3, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ERC8a, ERC8b, ERC8c, ERC8d, ERC10a, ERC10b, ERC11a
General overview of professional uses of glycerol fatty esters	Professional	SU0, SU1, SU10, SU12, SU20, SU22, PC1, PC9a, PC9b, PC17, PC18, PC21, PC24, PC25, PC31, PC32, PC35, PC39, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15, PROC17, PROC19, PROC20, PROC21, PROC24, ERC2, ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b
General overview of consumer uses of glycerol fatty esters	Consumer	SU21, PC0, PC1, PC3, PC9a, PC12, PC24, PC28, PC29, PC31, PC35, PC39, ERC2, ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b

Full text of use descriptors: see section 16

1.3. Details of the supplier of the safety data sheet

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Assenedestraat 2
BE 9940 Evergem
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)

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 product does not meet the PBT and vPvB classification criteria

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	%
Glycerides, C16-18 mono-	CAS No.: 91052-47-0 EC no.: 293-208-8 REACH-no: 01-2119492308-31	≤ 100

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. Consult an ophthalmologist if irritation persists.
First-aid measures after ingestion : Rinse mouth out with water. Get medical advice/attention if you feel unwell. Call a poison center (www.who.int/ipcs/poisons/centre/directory/en).

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

Symptoms/effects : No supplementary information available.

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 water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD: Not easily combustible. In finely divided state: increased fire hazard. INDIRECT 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. Prevent dust cloud formation, e.g. by wetting. Dust production: have neighbourhood close doors and windows. Exposure to fire/heat: have neighbourhood close doors and windows. In case of dust production: no naked flames or sparks. Dust: spark-/explosionproof appliances/lighting equipment.

For non-emergency personnel

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

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.

6.3. Methods and material for containment and cleaning up

For containment : Knock down/dilute dust cloud with water spray.

Methods for cleaning up : Carefully collect the spill/leftovers. If melted: allow liquid to solidify before taking it up. Scoop solid spill into closing containers or synthetic bags. Clean contaminated surfaces with a soap solution. Flush/dilute with water.

Other information : No supplementary information available.

6.4. Reference to other sections

Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling temperature : ≥ 10 °C above melting point

7.2. Conditions for safe storage, including any incompatibilities

Heat and ignition sources : KEEP AWAY FROM: Ignition sources.
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 : No supplementary information available.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protection equipment

Personal protective equipment:
Gloves. Protective clothing. In case of dust production: protective goggles. Dust production: dust mask with filter type P2.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:
Wear eye protection

Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Wear protective gloves

Other skin protection
Materials for protective clothing:
Good resistance: Nitrile rubber

Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	White to slightly yellow.
Appearance (room temperature)	:	Solid in various shapes.
Odour	:	Characteristic. Almost odourless.
Odour threshold	:	Not available
Melting point	:	≈ 66 °C
Freezing point	:	Not available
Softening point	:	ca. 65 °C (63-69)
Boiling point	:	> 250 °C
HMIS Flammability	:	Not available
Explosive properties	:	Predicted negative.
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	220 °C (ASTM D92)
Auto-ignition temperature	:	> 300 °C
Decomposition temperature	:	Flash point
pH	:	5 – 8
pH solution	:	Not available
Viscosity, kinematic	:	≈ 16 mm^2/s (100°C)
Viscosity, dynamic	:	≈ 31 cP (76°C)
Solubility	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Partition coefficient n-octanol/water (Log Pow)	:	> 5 (estimated value)
Vapour pressure	:	< 0.01 hPa (20°C)
Vapour pressure at 50 °C	:	Not available
Density	:	≈ 0.95 g/cm^3
Relative density	:	Not available
Relative vapour density at 20°C	:	Not applicable
Particle size	:	Not available
Particle aggregation state	:	Non-nano particles

9.2. Other information

Other safety characteristics

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

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

RADIAMULS MG 2921K (91052-47-0)	
LD50 oral rat	> 5000 mg/kg Non-toxic

Skin corrosion/irritation : Not classified
pH: 5 – 8

Serious eye damage/irritation : Not classified
pH: 5 – 8

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

RADIAMULS MG 2921K (91052-47-0)	
Viscosity, kinematic	≈ 16 mm^2/s (100°C)

11.2. Information on other hazards

Endocrine disrupting properties

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

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 data available concerning bioaccumulation
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

RADIAMULS MG 2921K (91052-47-0)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

RADIAMULS MG 2921K (91052-47-0)	
Partition coefficient n-octanol/water (Log Pow)	> 5 (estimated value)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

RADIAMULS MG 2921K (91052-47-0)
The product does not meet the PBT and vPvB classification criteria

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

RADIAMULS MG 2921K (91052-47-0)	
Other information	No supplementary information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal : Scoop solid spill into closing containers,Powdered: do not use compressed air for pumping over spills,Clean contaminated surfaces with a soap solution

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

ADR	IMDG	IATA	ADN	RID
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Marine pollutant: no				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

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 (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

VOC Directive (2004/42)

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

Explosives Precursors Regulation (EU 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 (EC 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)

National regulations

Related CAS RN	:	31566-31-1
Chemical inventories	:	Compliant with AICIS, DSL, EU REACh, IECSC, INSQ, Japan ENCS, Japan ISHL, KECL, KKDIK, NCI, NZIoC, PICCS, TCSI, TECI_DIW, TECI_FDA, TR EAEU, TSCA
KKDIK number (Turkey)	:	98-0000530639-61
K-REACh (Korea)	:	preregistered
UK-REACh (Great Britain)	:	DUIN submitted
Swiss ChemO (SR 813.11)	:	This substance is not subject to the obligation to register pursuant to art.69 of of the Chemicals Ordinance (ChemO)

Germany

Water hazard class (WGK)	:	WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 690).
VOC content	:	< 1 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)

Netherlands

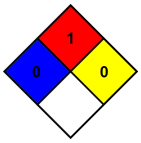
ABM category	:	A(4) - low hazard for aquatic organisms, may have longterm hazardous effects in aquatic environment
SZW List of Carcinogenic Substances	:	The substance is not listed
SZW List of Mutagenic Substances	:	The substance is not listed
SZW List of Reprotoxic Substances – Breastfeeding	:	The substance is not listed
SZW List of Reprotoxic Substances – Fertility	:	The substance is not listed
SZW List of Reprotoxic Substances – Development	:	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.

Chemical inventories legend	:	AICIS = Australian Inventory of Industrial Chemicals DSL = Canadian Domestic Sustances List EU REACh = European Union REACH Regulation 1907/2006 IECSC = Inventory of Existing Chemicals Substances in China INSQ = Mexico National Inventory of Chemical Substance Japan ENCS = Japanese Existing Chemical Substances (ISHL) Japan ISHL = Japanese Existing and New Chemical Substances (CSCL) KECL = Korean Existing Chemical List KKDIK = Turkey REACH Regulation No.30105 NCI = Vietnam National Chemical Inventory NZIoC = New Zealand Inventory of Chemicals PICCS = Philippines Inventory of Chemicals and Chemical Substances TCSI = Taiwan Chemical Substance Inventory TECI_DIW = Thailand Existing Chemicals Inventory - Department of Industrial Works List TECI_FDA = Thailand Existing Chemicals Inventory - Food and Drug Administration List TR EAEU = Eurasian Economic Union Unified list of chemicals TSCA = USA Toxic Substances Control Act
SDS changed sections	:	15 - Regulatory information
SDS Reason for revision	:	No supplementary information available
NFPA health hazard	:	0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	:	1 - Materials that must be preheated before ignition can occur.
NFPA reactivity	:	0 - Material that in themselves are normally stable, even under fire conditions.
NFPA image	:	
Other information	:	No supplementary information available.

Full text of use descriptors	
AC10	Rubber articles
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)

Full text of use descriptors	
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)
PC0	Other
PC1	Adhesives, sealants
PC12	Fertilizers
PC14	Metal surface treatment products
PC17	Hydraulic Fluids
PC18	Ink and Toners
PC19	Intermediate
PC21	Laboratory chemicals
PC24	Lubricants, greases, release products
PC25	Metal working fluids
PC28	Perfumes, fragrances
PC29	Pharmaceuticals
PC3	Air care products
PC31	Polishes and wax blends
PC32	Polymer preparations and compounds
PC35	Washing and cleaning products
PC39	Cosmetics, personal care products
PC9a	Coatings and paints, thinners, paint removers
PC9b	Fillers, putties, plasters, modelling clay
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
PROC17	Lubrication at high energy conditions in metal working operations
PROC19	Manual activities involving hand contact

Full text of use descriptors	
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
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
SU14	Manufacture of basic metals, including alloys
SU15	Manufacture of fabricated metal products, except machinery and equipment
SU17	General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU20	Health services
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
SU2a	Mining, (including offshore industries)
SU2b	Offshore industries
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
SU4	Manufacture of food products
SU6b	Manufacture of pulp, paper and paper products
SU8	Manufacture of bulk, large scale chemicals (including petroleum products)
SU9	Manufacture of fine chemicals

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.