RADIAMULS DATEM 2005K

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
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Issue date: 28/11/2025 Revision date: 27/11/2025 Supersedes version of: 14/04/2025 Version: 3.16

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	RADIAMULS DATEM 2005K
REACH number	:	all the ingredients of this product in the scope of Regulation 1907/2006/EC (REACH), if not exempted, have been registered.
C&L notification reference no	:	all the ingredients of this product in the scope of Regulation 1272/2008/EC (CLP), if not exempted, have been notified to the C&L Inventory.

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

1.3. Details of the supplier of the safety data sheet

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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)

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.

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	calcium carbonate (471-34-1), magnesium oxide (1309-48-4)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	calcium carbonate (471-34-1), magnesium oxide (1309-48-4)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are 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 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Glycerides, C8-21 and C8-21-unsatd. mono- and di-, 2-(acetyloxy)-3-hydroxybutanedioates 2,3-bis(acetyloxy)butanedioates	CAS No.: 100085-39-0 EC no.: 309-180-8	≤ 85	Not classified
calcium carbonate	CAS No.: 471-34-1 EC no.: 207-439-9 REACH-no: 01-2119486795-18	15 – 20	Not classified
magnesium oxide	CAS No.: 1309-48-4 EC no.: 215-171-9	1 – 5	Not classified

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 : No supplementary information available.

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 with water. Do not induce vomiting. Consult a doctor/medical service if you feel unwell. Call Poison Information Centre (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 : No supplementary information available

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Store in a dry place.
Information on mixed storage	:	KEEP AWAY FROM: Acids. strong acids. bases. strong bases.
Storage area	:	Store at a temperature <18°C (above 18°C enhanced caking may occur). Store in a well-ventilated place. 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

National occupational exposure and biological limit values

calcium carbonate (471-34-1)	
Belgium - Occupational Exposure Limits	
OEL TWA	10 mg/m³
France - Occupational Exposure Limits	
VLEP 8h (OEL TWA)	10 mg/m³
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	10 mg/m³ (Inhalable dust) 4 mg/m³ (Respirable dust)

magnesium oxide (1309-48-4)	
Belgium - Occupational Exposure Limits	
OEL TWA	10 mg/m³
France - Occupational Exposure Limits	
VLEP 8h (OEL TWA)	10 mg/m³ (fumées)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	10 mg/m³ (Inhalable dust) 4 mg/m³ (Fume and respirable dust)
USA - ACGIH - Occupational Exposure Limits	
ACGIH® TLV® TWA	10 mg/m³ (Inhalable fraction)

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):



Skin protection

Other skin protection

Materials for protective clothing:

Good resistance: Nitrile rubber

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	:	≈ 55 °C
Freezing point	:	Not available
Boiling point	:	> 250 °C
HMIS Flammability	:	Not available
Explosive properties	:	Predicted negative.
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	> 200 °C (ASTM D92)
Auto-ignition temperature	:	> 300 °C
Decomposition temperature	:	Not available
pH	:	Not available
pH solution	:	Not available
Viscosity, kinematic	:	Not applicable
Solubility	:	Water: Dispersible in hot water
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	< 0.01 hPa (20°C)
Vapour pressure at 50 °C	:	Not available
Density	:	No supplementary information available
Relative density	:	Not available
Relative vapour density at 20°C	:	Not applicable
Particle size	:	Not available

Glycerides, C8-21 and C8-21-unsatd. mono- and di-, 2-(acetyloxy)-3-hydroxybutanedioates 2,3-bis(acetyloxy)butanedioates	
Flash point	No supplementary information available
Auto-ignition temperature	No supplementary information available
Vapour pressure	No supplementary information available

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

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 DATEM 2005K	
LD50 oral rat	> 5000 mg/kg Non-toxic

calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 3 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))

magnesium oxide (1309-48-4)	
LD50 oral rat	> 5000 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Rabbit, Literature study, Dermal)

Skin corrosion/irritation : Not classified

calcium carbonate (471-34-1)	
pH	8 – 9 (10 %, 20 °C)

magnesium oxide (1309-48-4)	
pH	11 (10 %)

Serious eye damage/irritation : Not classified

calcium carbonate (471-34-1)	
pH	8 – 9 (10 %, 20 °C)

magnesium oxide (1309-48-4)	
pH	11 (10 %)

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

calcium carbonate (471-34-1)	
Viscosity, kinematic	Not applicable (solid)

magnesium oxide (1309-48-4)	
Viscosity, kinematic	Not applicable (solid)

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 bioaccumulation data available

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

RADIAMULS DATEM 2005K	
LC50 - Fish [1]	> 100 mg/l (96 hours)

calcium carbonate (471-34-1)	
LC50 - Fish [1]	> 100 % (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 % (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

12.2. Persistence and degradability

RADIAMULS DATEM 2005K	
Persistence and degradability	Rapidly degradable

calcium carbonate (471-34-1)	
Persistence and degradability	Biodegradability in soil: not applicable, Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Glycerides, C8-21 and C8-21-unsatd. mono- and di-, 2-(acetyloxy)-3-hydroxybutanedioates 2,3-bis(acetyloxy)butanedioates (100085-39-0)	
Persistence and degradability	Rapidly degradable

magnesium oxide (1309-48-4)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

calcium carbonate (471-34-1)	
Bioaccumulative potential	Not bioaccumulative.

magnesium oxide (1309-48-4)	
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

calcium carbonate (471-34-1)	
Surface tension	No data available (test not performed)
Ecology - soil	Low potential for adsorption in soil.

magnesium oxide (1309-48-4)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	calcium carbonate (471-34-1), magnesium oxide (1309-48-4)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	calcium carbonate (471-34-1), magnesium oxide (1309-48-4)

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 DATEM 2005K	
Other information	No supplementary information available
calcium carbonate (471-34-1)	
Other information	No supplementary information available
Glycerides, C8-21 and C8-21-unsatd. mono- and di-, 2-(acetyloxy)-3-hydroxybutanedioates 2,3-bis(acetyloxy)butanedioates (100085-39-0)	
Other information	No supplementary information available
magnesium oxide (1309-48-4)	
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 regulated for transport				

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
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : Not subject

Transport by sea

Transport regulations (IMDG) : Not subject

Air transport

Transport regulations (IATA) : Not subject

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

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

Contains no substance subject to the COUNCIL REGULATION (EC) for the control 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

Chemical inventories : Compliant with AICIS, DSL, ECST, EU REACh, IECSC, NCI, NZIoC, TCSI, TR EAEU
KKDIK number (Turkey) : not all the ingredients of this product in the scope of KKDIK have been (pre-)registered.
K-REACh (Korea) : not all the ingredients of this product in the scope of K-REACh have been (pre-)registered.
UK-REACh (Great Britain) : not all the ingredients of this product in the scope of UK-REACh have been notified.

Germany

VOC ordinance (ChemVOCFarbV) : VOC content : < 1 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)
Maximum content of VOC : 0.00 g/l

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Override matching entry (12. BImSchV) : Is not subject to the Major Accidents Ordinance (12. BImSchV)

Netherlands

ABM category : A(4) - low hazard for aquatic organisms, may have longterm hazardous effects in aquatic environment
SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Training advice : No supplementary information available.

Chem. inventories legend	:	AICIS = Australian Inventory of Industrial Chemicals DSL = Canadian Domestic Sustances List ECST = Existing Chemical Substances Inventory of Taiwan EU REACh = European Union REACH Regulation 1907/2006 IECSC = Inventory of Existing Chemicals Substances in China NCI = National Chemical Inventory NZIoC = New Zealand Inventory of Chemicals TCSI = Taiwan Chemical Substance Inventory TR EAEU = Eurasian Economic Union Unified list of chemicals
SDS changed sections	:	15 - Regulatory information
SDS Reason for revision	:	No supplementary information available
Other information	:	No supplementary information available.
The classification complies with	:	ATP 12

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.