

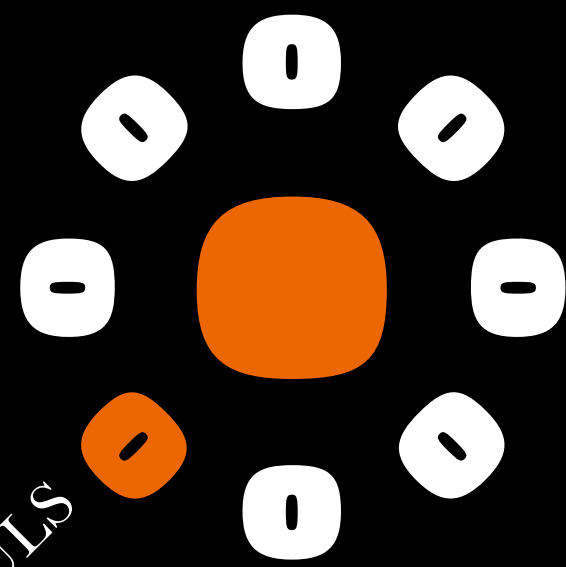
oleon

RADIAMULS

oleon

A NATURAL CHEMISTRY

Oleon is the leading company in the production of oleochemicals in Europe. The concept we have chosen combines technical performance and environmental compatibility; our products meet the most stringent market requirements, and the renewable property of our raw materials, vegetable oils and animal fats provides a response to the latest environmental legislations. Trends today show that this concept meets the future needs of our society.



RADIAMULS
Food Emulsifiers

trade name Radia®

- products**
- esters
 - glycerine
 - fatty acids
 - fatty alcohols
 - dimer acids
 - technical oils
 - biodiesel
 - specialty oleochemicals

raw materials

- vegetable oils (*palm, rapeseed, soy, sunflower, coconut, etc.*)
- animal-based fats

All our raw materials are non-toxic and biodegradable

Oleon production sites

Oleon Ertvelde, Belgium (*also head office*)
Glycerine, fatty acids & alcohols production, biodiesel, R&D

Oleon Oelegem, Belgium
Fatty esters production, dimer acids, R&D

Oleon Emmerich, Germany
Specialty fatty acids production, ketones, technical oils, vitamins, R&D

Oleon Sandefjord, Norway
Fatty esters production

Oleon Port Klang, Malaysia
Fatty esters production

**safety
quality
environment**

Oleon pledges to conduct its activities and products in a manner that safeguards the environment, and the health and safety of its personnel, local communities, consumers and the general public. To ensure safety and environmental control, the production is ISO 14001 certified. An Internal Safety Management System based on the principles of ISRS and OHSAS 18001.3 ensures the health and safety of its personnel and the surrounding public. To guarantee the quality and consistency of Oleon products and services, the quality assurance system ISO 9001 is implemented and certified throughout the whole organization.

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RADIA®

OLEOCHEMICALS

General Information



Oleochemicals are derived from a naturally renewable resource: natural fats and oils.

Oleochemistry splits these raw materials to obtain their constituents, glycerine and fatty acids, and then recombines them with other molecules or with each other.

Oleochemistry uses the biodegradable, non-toxic and non-irritant properties of natural fats and oils to produce a wide range of chemicals. The production of Radia® oleochemicals is an integrated operation from fatty acids, natural fatty alcohols and glycerine to oleochemical derivatives, specialty and performance chemicals.

Traditionally, most end uses of oleochemicals have resulted from their lack of toxicity and from the low skin and eye irritation displayed by the hydrocarbon chains present in natural fatty materials.

Today, governments and industry are increasingly aware of the combination of efficiency and environmental compatibility offered by oleochemicals. In recent years Oleon Research has developed many new environmentally friendly oleochemicals, such as a biodegradable drilling mud fluid, a lubricant for water-based drilling muds, base oils for biodegradable lubricants, deinking chemicals and non-VOC solvents.

fatty acids

Oleon, the leader on the European oleochemical scene, markets a wide range of fatty acids. Radiacid® fatty acids are derived from animal fats and oils such as beef tallow and fish oils and from vegetable oils such as soybean oil, rapeseed oil, coconut and palm kernel oils, palm oil, etc. Radiacid® fatty acids are produced by Oleon in its plant at Ertvelde near Ghent, Belgium (which went into production in 1958), and its Kosher plant in Emmerich, Germany (in production since 1908). Over the years these plants have grown to their present status: not only one of the biggest but also one of the most modern and efficient oleochemical plants worldwide. In Ertvelde fatty acids, fatty alcohols, glycerine and hydrogenated triglycerides are produced. In the Emmerich plant the production of specialty fatty acids takes place, along with ketones, technical oils and vitamins.

natural glycerine

The applications of natural glycerine are based on a unique combination of properties: it is a tasteless and odorless hygroscopic, non-toxic and non-irritant viscous liquid with a plasticizing and lubricating activity, and it contains three free hydroxyl groups, supplying chemical reactivity.

fatty esters

The performance-directed esterification or transesterification of our own fatty acids, fatty alcohols, hydrogenated triglycerides and glycerine with other acids and alcohols leads to a wide range of oily, fatty or waxy substances, each with its own specific physical and chemical properties. Almost all fatty esters display the inherent advantages of their raw materials, natural fats and oils: they are non-toxic, non-irritating and biodegradable. The number of possible fatty esters is virtually unlimited. So are the combinations of functions they can perform.

RADIAMULS® MG

MONO- AND DIGLYCERIDES OF FATTY ACIDS

Table 1 / composition of Radiumuls® MG

TRADE NAME	LEGAL STATUS EU	PHYSICAL FORM
SATURATED MONO-AND DIGLYCERIDES OF FATTY ACIDS		
Radiumuls MG 2141	E 471 + E 470	solid
Radiumuls MG 2143	E 471	solid
Radiumuls MG 2642K	E 471	solid
Radiumuls MG 2643	E 471	solid
Radiumuls MG 2901	E 471	solid
UNSATURATED MONO-AND DIGLYCERIDES OF FATTY ACIDS		
Radiumuls MG 2151	E 471	paste
Radiumuls MG 2152	E 471 + E 321	paste
Radiumuls MG 2610	E 471	liquid/paste
Radiumuls MG 2902	E 471	paste

Rdiamuls® MG products are water-in-oil emulsifiers which perform many other functions as well: they complex amylose, regulate the crystallization of fat, plasticize, homogenize and distribute other ingredients, inhibit foam, help in rehydration, impart non-sticking properties, etc. The major products in the Radiamuls® MG range are listed below. Other mono- and diglycerides are available on request. Alone or in emulsifier blends, they are used in: margarine and shortenings, ice creams and other desserts, starch and starch-containing foods, instant potatoes, chocolate and other coatings and fillings, confectionery products, coffee whiteners and other spray-dried foodstuffs, peanut butter and other spreads, chewing gum, etc.



ACID VALUE	IODINE VALUE	α -MONOGLYCERIDES	MELTING POINT	LOVIBOND COLOR
mg KOH/g	g I ₂ /100g	%	°C	1"
<3	≤3	35	58	5 Y - 1 R
<2	<2	40	58	5 Y - 1 R
<1	<2	52	60	5 Y - 1 R
<1	<2	52	60	5 Y - 1 R
<3	<2	85	63-69	5 Y - 1 R
<1	75-85	40	15	15 Y - 3 R
<3	75-85	40	15	15 Y - 3 R
<3	67-77	45	25	10 Y - 2.5 R
<4	80-110	85	25	5 Y - 1 R



oleon Mono- and diglycerides of fatty acids



RADIAMULS® ACETEM ACETIC ACID ESTERS OF MONO-AND DIGLYCERIDES

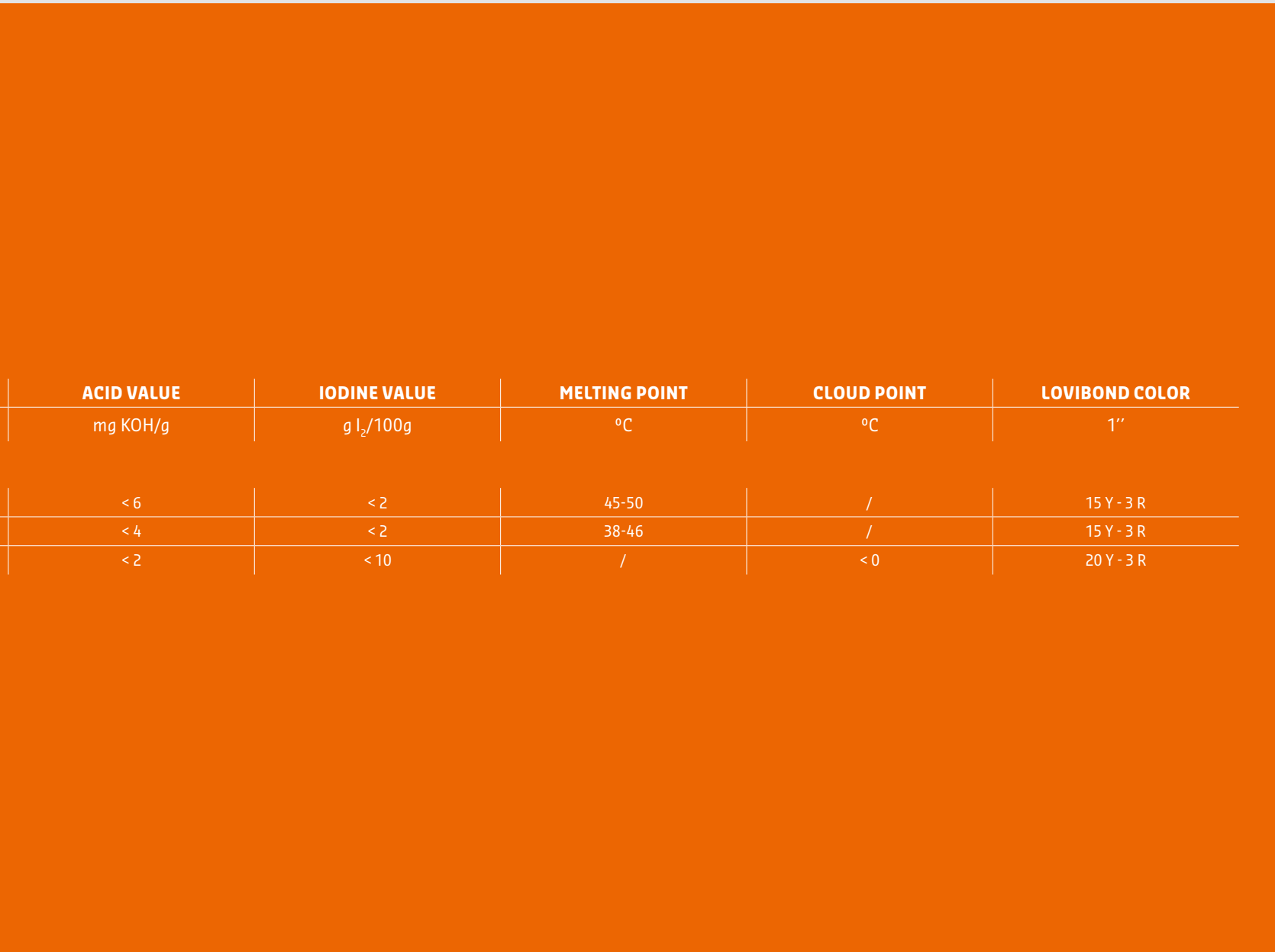
Table 2 / composition of Radiamuls® Acetem

TRADE NAME	LEGAL STATUS EU	PHYSICAL FORM
ACETIC ACID ESTERS OF MONO- AND DIGLYCERIDES		
Radiamuls Acetem 2030K	E 472a	solid/paste
Radiamuls Acetem 2050	E 472a	solid/paste
Radiamuls Acetem 2134	E 472a	liquid

Rdiamuls® Acetems are alpha-tending emulsifiers that stabilize the alpha-crystal form of fats and other emulsifiers. Alone or in emulsifier blends, their alpha tendency enhances the volume, the fine and moist texture, and the shelf life of a variety of foods based on foam systems that must be whipped to a stable and aerated form: toppings, instant desserts, icings, etc.

Acetylated mono- and diglycerides have pronounced film forming properties. Radiamuls Acetem 2050 is used in meat casings and cheese coatings to protect the foodstuffs against bacterial attack, dessication and oxidation.

Rdiamuls Acetem 2134 is a component of demolding agents and a lubricant for food processing equipment.



ACID VALUE	IODINE VALUE	MELTING POINT	CLOUD POINT	LOVIBOND COLOR
mg KOH/g	g I ₂ /100g	°C	°C	1"
< 6	< 2	45-50	/	15 Y - 3 R
< 4	< 2	38-46	/	15 Y - 3 R
< 2	< 10	/	< 0	20 Y - 3 R

RADIAMULS® LACTEM

LACTIC ACID ESTERS OF MONO-AND DIGLYCERIDES

Radiumuls® Lactem additives also belong to the group of alpha-tending emulsifiers.
Radiumuls® Lactem is used as a whipping agent in creams, desserts and cake batters.

Table 3 / composition of Radiumuls® Lactem and Citrem

TRADE NAME	LEGAL STATUS EU	PHYSICAL FORM
LACTIC ACID ESTERS OF MONO- AND DIGLYCERIDES		
Radiumuls Lactem 2950	E 472b	solid
Radiumuls Lactem 2951K	E 472b	solid

TRADE NAME	TYPE	LEGAL STATUS EU	PHYSICAL FORM
CITRIC ACID ESTERS OF MONO-AND DIGLYCERIDES			
Radiumuls Citrem 2931	W/O emulsifier	E 472c	solid
Radiumuls Citrem 2932	O/W emulsifier	E 472c	solid

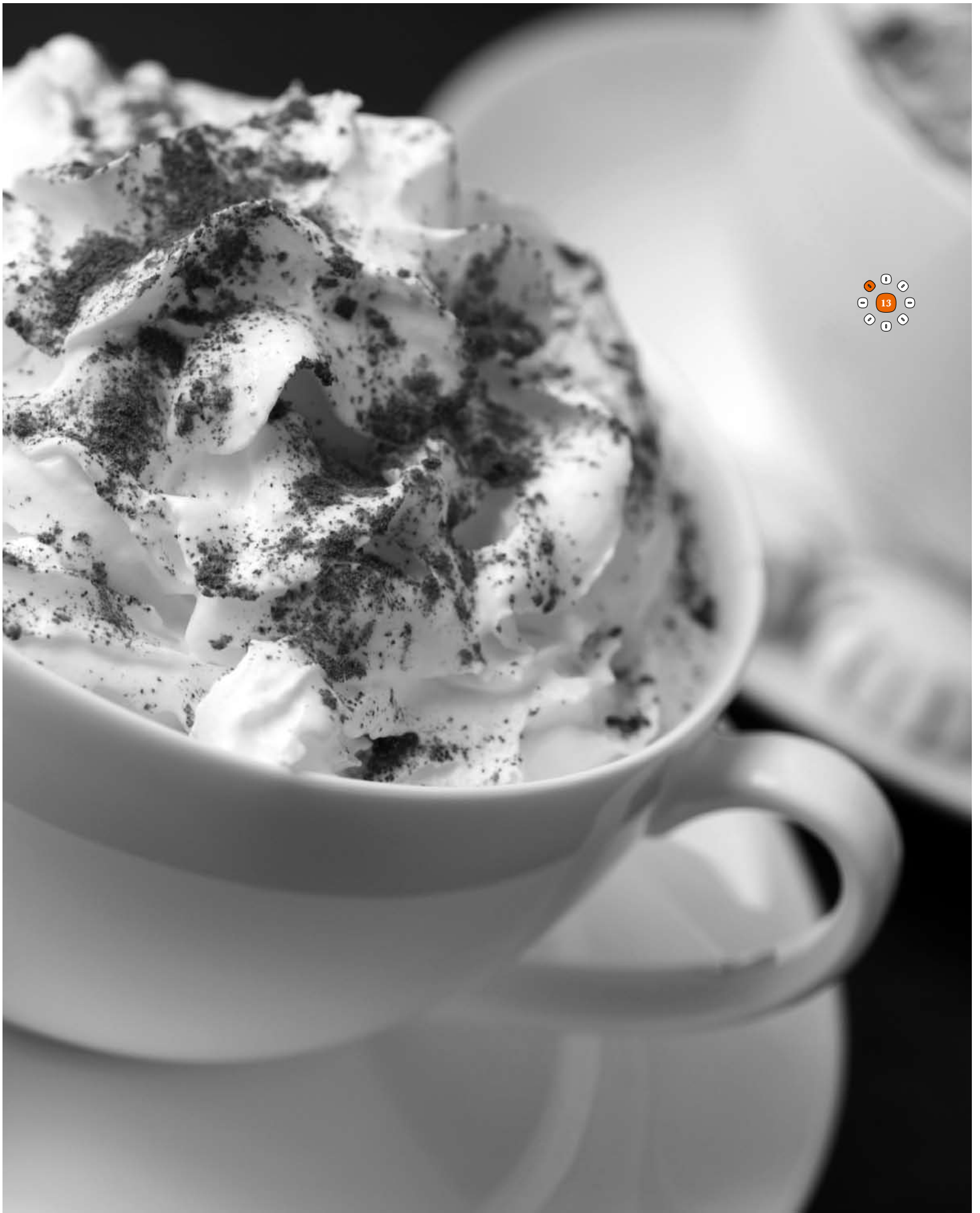
RADIAMULS® CITREM CITRIC ACID ESTERS OF MONO-AND DIGLYCERIDES



Radiumuls® Citrem products are anti-spattering agents for cooking margarines. Radiumuls® Citrem additives are also emulsifiers for the meat industry (pâtés and other meat products) and can be a replacement product for lecithin in applications such as chocolate and compound coatings.

ACID VALUE	IODINE VALUE	SAPONIFICATION VALUE	MELTING POINT	LOVIBOND COLOR
mg KOH/g	g I ₂ /100g	mg KOH/g	°C	1"
< 5	< 2	250-275	40-50	10 Y - 2.5 R
< 5	< 2	275-295	40-50	10 Y - 2.5 R

ACID VALUE	IODINE VALUE	MELTING POINT	LOVIBOND COLOR
mg KOH/g	g I ₂ /100g	°C	1"
20-40	< 1	55-62	5 Y - 1.5 R
15-30	< 3	55-62	10 Y - 2 R



oleon Lactic acid esters of mono-and diglycerides

RADIAMULS® POLY POLYGLYCEROL MONOSTEARATE

Rdiamuls Poly 2248 is an alpha-tending emulsifier used primarily in cake batters to enhance the volume and texture of the final product. However, their air incorporating properties may be of use in many other applications, such as creams and toppings.

Rdiamuls Poly 2248 is used in industrial margarines to improve the plasticity of the product. In puff pastry margarine the emulsifier helps to create a dry surface.

Table 4 / composition of Radiamuls® Poly

TRADE NAME	LEGAL STATUS EU	PHYSICAL FORM	ACID VALUE mg KOH/g AOCS Ja 6-55	IODINE VALUE g I ₂ /100g	MELTING POINT °C	LOVIBOND COLOR 1"
POLYGLYCEROL MONOSTEARATE Rdiamuls Poly 2248	E 475	solid	< 2	< 2	50-60	20 Y - 4 R

RADIAMULS® POLY POLYGLYCEROL POLYRICINOLEATE



Rdiamuls Poly 2253K improves chocolate fluidity. At a normal use level of 0.4%, soy lecithin usually provides the right viscosity but not the fluidity needed to produce acceptable and economical coatings. High amounts of cocoa butter improve fluidity, but at an exorbitant cost. Tests with a well known brand of bitter chocolate have shown that the same flow properties are obtained with:

Rdiamuls Poly 2253K	Cocoa butter
0.1 %	2.1 %
0.3 %	5.6 %
0.5 %	7.6 %

The combined use of soy lecithin and Radiamuls Poly 2253K allows optimal regulation of viscosity and fluidity. Radiamuls Poly 2253K is also a water-in-oil emulsifier for the production of demolding agents for bakery, pastry, confectionery and other foodstuffs and lubricants for food processing equipment. In the production of low-calorie spreads, Radiamuls Poly 2253K is often incorporated into the emulsion, where it acts as an emulsion stabilizer.

TRADE NAME	LEGAL STATUS EU	PHYSICAL FORM	ACID VALUE mg KOH/g	IODINE VALUE g 1 ₂ /100g	GARDNER COLOR
POLYGLYCEROL POLYRICINOLEATE Rdiamuls Poly 2253K	E 476	liquid	< 6	75-95	< 6



oleon Polyglycerol polyricinoleate



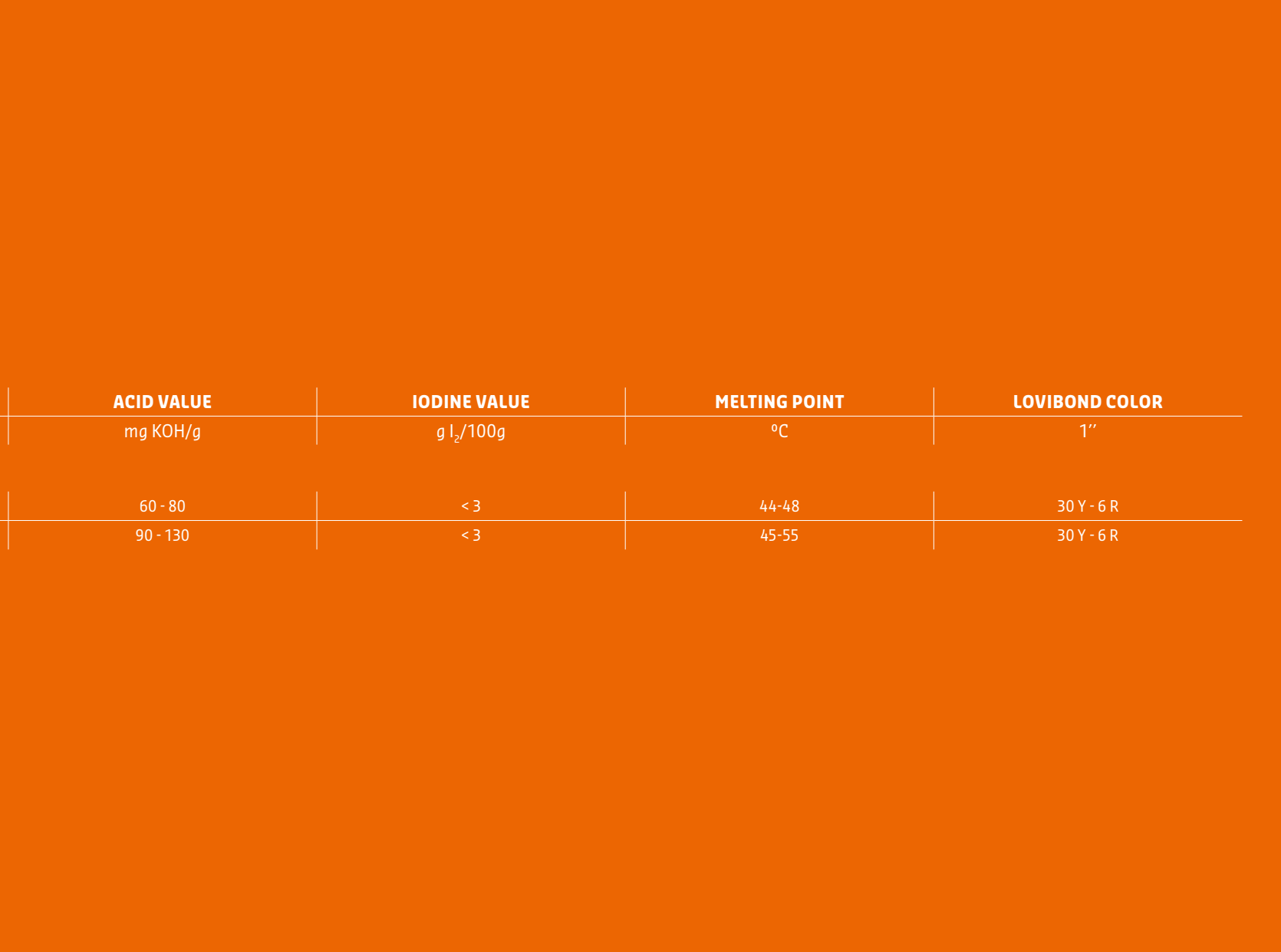
RADIAMULS® SL

STEAROYL LACTYLATES

Table 5 / composition of Radiamuls® SL

TRADE NAME	LEGAL STATUS EU	PHYSICAL FORM
STEAROYL LACTYLATES		
Rdiamuls SL 2990	E 481	solid
Rdiamuls SL 2980	E 482	solid

When added to wheat flour, Radiamuls® SL substantially improves the stability of the dough and the quality of baked goods leavened by yeast or baking powder. The stearyl lactylates interact with the fats and the starch in the dough, enhancing the dispersibility of the fat, and they are oriented at the interface between the gluten structure and the starch granules. Gelation and swelling of starch are retarded, which leads to a near perfect, uniform and firm structure of the crumb. The starch-emulsifier complex is not destroyed during the baking process and continues its anti-staling effect until consumption of the baked goods. These unique properties make Radiamuls® SL eminently suitable for applications such as sliced and toasted bread.



ACID VALUE mg KOH/g	IODINE VALUE g I ₂ /100g	MELTING POINT °C	LOVIBOND COLOR 1"
60 - 80	< 3	44-48	30 Y - 6 R
90 - 130	< 3	45-55	30 Y - 6 R

RADIAMULS® SORB SORBITAN ESTERS AND POLYSORBATES

Radiumuls® Sorb products are a range of water-in-oil and oil-in-water emulsifiers. W/O emulsions are favored by emulsifiers with a hydrophilic-lipophilic balance (HLB) value below 6.

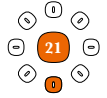
Table 6 / composition of Radiumuls® Sorb

TRADE NAME	TYPE	LEGAL STATUS EU
SORBITAN MONO-ESTERS		
Radiumuls Sorb 2125	laurate	E 493
Radiumuls Sorb 2145	stearate	E 491
Radiumuls Sorb 2160K	stearate SE	E 491 + E 470
Radiumuls Sorb 2161	stearate SE	E 491 + E 470
Radiumuls Sorb 2156	oleate	E 494
SORBITAN TRI-ESTERS		
Radiumuls Sorb 2345K	stearate	E 492
POLYSORBATES		
Radiumuls Sorb 2137	polysorbate 20	E 432
Radiumuls Sorb 2157	polysorbate 80	E 433
Radiumuls Sorb 2147	polysorbate 60	E 435

The higher HLB values favor O/W emulsions. It has been demonstrated empirically that emulsifier blends in general yield more stable emulsion systems than single emulsifiers with the same HLB. For all practical purposes, HLB values can be considered additive and proportional. Radiamuls® Sorbs are often used in blends with one another or with other emulsifiers, such as Radiamuls® MG.

Radiamuls® Sorbs are used as

- anti-staling agents and dough conditioners in yeast raised baked goods
- dispersants of flavors and spice oils and palatability improvers in bakery products
- solubilizers in vitamin oil compounds
- whipping aids and dryness promoters in whipped toppings
- palatability improvers, fat bloom inhibitors and gloss loss retardants in confectioners' coatings and chocolate
- flavor dispersants in carbonated beverages
- dryness improvers, whipping aids and flavor dispersants in frozen desserts and ice-creams
- dispersion enhancers which reduce the total incorporation of fat in dry-mixed soups
- components of defoaming formulae in the sugar industry
- promoters of easy wet out in water and inhibitors of oiling off in coffee whiteners and other fat-containing spray-dried foods



PHYSICAL FORM	ACID VALUE mg KOH/g	IODINE VALUE g I ₂ /100g	GARDNER COLOR	HLB VALUE
paste	< 6	< 10	< 6	7.5
solid	< 7	< 1	< 6	5
solid	< 10	< 3	< 6	5
solid	< 10	< 3	< 6	5
liquid	< 7	62 - 76	< 8	5
solid	< 5	< 1	< 6	2.5
liquid	< 2	< 5	< 5	16.5
liquid	< 2	18 - 24	< 10	15
paste	< 2	< 1	< 8	15

RADIAMULS® MCT

MIDDLE CHAIN TRIGLYCERIDES

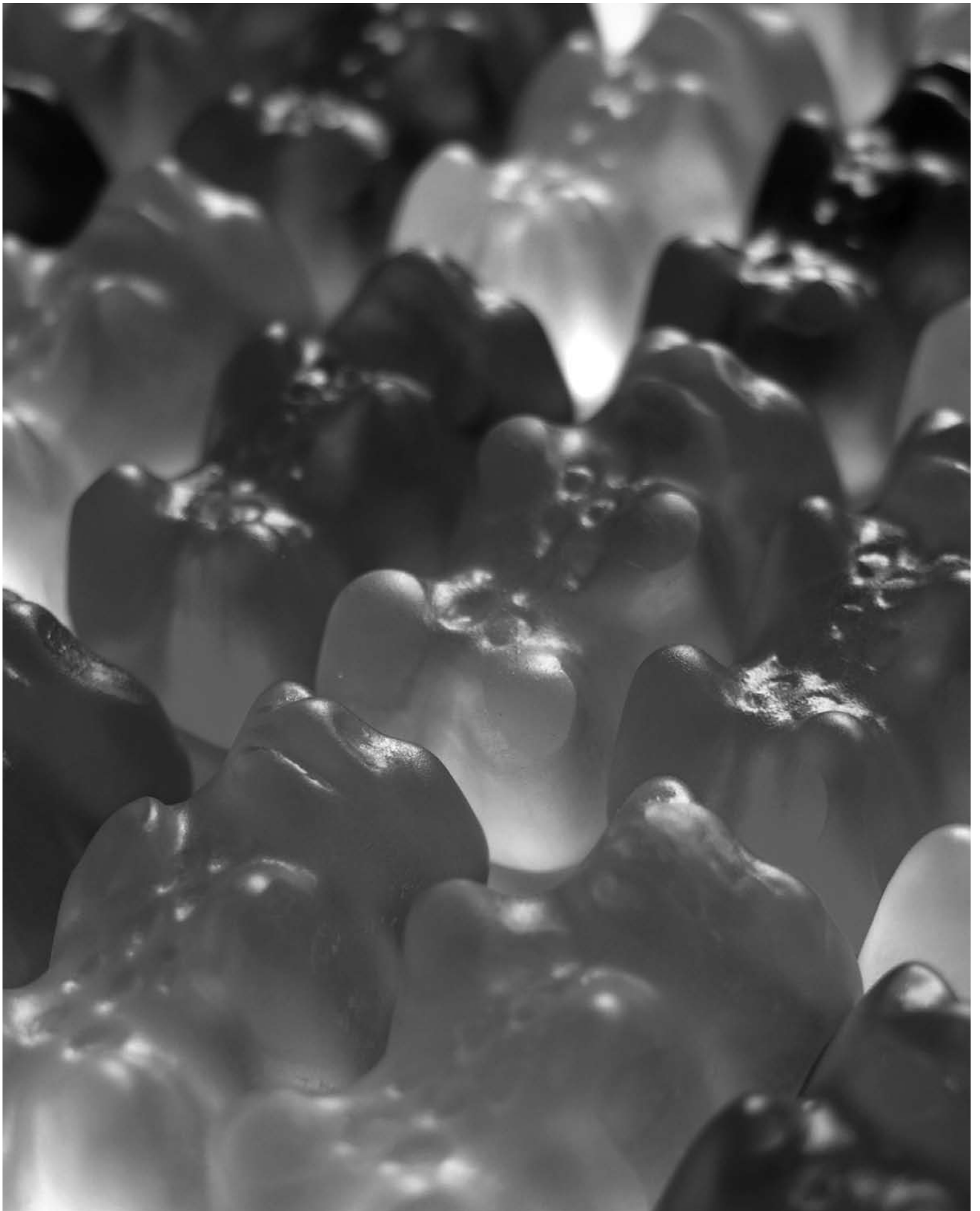
Table 7 / composition of Radiamuls® MCT

TRADE NAME	LEGAL STATUS EU	LEGAL STATUS EU	ACID VALUE mg KOH/g
MIDDLE CHAIN TRIGLYCERIDES			
MCT 2106	vegetable oil	liquid	< 0.1
MCT 2107K	vegetable oil	liquid	< 0.1

Middle Chain Triglycerides (C8-C10 esters) are regarded by most national legislatures as edible oils. Radiamuls MCT 2106 are not additives and their presence in foodstuffs does not need to be declared. These totally odorless and tasteless low-viscosity oils are liquid at room temperature and start being cloudy at -10°C. Upon heating, the cloudiness disappears. Because of their low viscosity and cloud point, they form very thin films on foodstuffs or molds. Low acidity and high saturation endow Radiamuls® MCT oils with a high resistance against hydrolysis and oxidation. After 100 hours of testing on a Rancimat at 100°C, they did not show any sign of oxidative rancidity. Taste and odor remained totally neutral. Confectionery, rice and dried fruit (raisins, dried prunes, etc.) coated with Radiamuls® MCT oils do not stick to each other, nor to the packaging. They are pleasingly glossy and protected from oxidation. Used alone or blended, Radiamuls® MCT oils are mold release aids for bakery, pastry, confectionery and other foods and lubricants for food processing equipment. When added to oleoresins or other high viscosity products, they are viscosity depressants or carriers of active substances. They are lipids for dietetic foods in which the presence of middle chain fatty acids is imperative (infant nutrition, malabsorption of lipids, etc.). The metabolism assimilates middle chain triglycerides better than long chain lipids.



IODINE VALUE	CLOUD POINT	VISCOSITY AT 40°C	WATER	COLOR APHA
g I ₂ /100g	°C	cSt	%	
< 0.5	< -5	14	< 0.1	< 50
< 0.5	< -5	14	< 0.1	< 50



oleon Middle Chain Triglycerides



RADIACID®

POLYUNSATURATED FATTY ACIDS

The Radiacid® Polyunsaturated fatty acids are used as raw material for the manufacturing of various emulsifiers or other food products. The Radiacid® range consists of products based on rapeseed oil, sunflower oil or soy oil, all having their specific fatty acid distribution. Products with a low trans fatty acid content and other tailor made products can be produced on request.

Table 9 / composition of Radiacid® Polyunsaturated fatty acids

TRADE NAME	CHEMICAL NAME	PHYSICAL FORM	LOVIBOND COLOR
POLYUNSATURATED FATTY ACIDS			5 1/4"
Radiacid 0132	sunflower oil fatty acid	liquid	10 Y - 1 R
Radiacid 0163	rapeseed oil fatty acid	liquid	15 Y - 1.5 R
Radiacid 0122	soya oil fatty acid	liquid	10 Y - 1 R



ACID VALUE	IODINE VALUE	COMPOSITION (%)				
mg KOH/g	g I ₂ /100g	C16	C18	C18:1	C18:2	C18:3
198 - 203	127 - 143	4 - 9	max 6	15 - 31	56 - 67	max 1
198 - 203	111 - 123	4 - 7	max 4	56 - 65	18 - 25	6 - 11
198 - 203	129 - 139	9 - 12	max 6	20 - 29	47 - 58	4 - 10

RADIA® KETONES

Ketones are widely used in various flavor & fragrance applications. The odor of the Radia® ketones range from rose and citrus to fresh sweet. All Radia® ketones are produced on basis of renewable raw materials. The high product quality is safeguarded by the in house production of the main raw materials and a certified HACCP system.

Table 10 / composition of Radia® Ketones

TRADE NAME	CHEMICAL NAME	CAS #	FEMA #
KETONES			
Radia MNKE	Methyl Nonyl Ketone // 2-Undecanone	112-12-9	3093
Radia EAKE	Ethyl Amyl Ketone // 2-Nonanone	106-68-3	2803
Radia MHKE	Methyl Heptyl Ketone // 3-Octanone	821-55-6	2785



PHYSICAL FORM	ACID VALUE	ASSAY
	mg KOH/g	%
solid	max 2	min 97.5
liquid	max 2	min 97.5
liquid	max 2	min 97.5



GLYCERINE

Glycerine is used in many bakery and other food products to prevent desiccation, enhance texture, retard staling, improve the miscibility of poorly miscible products and adjust viscosity. The manufacturing of meat casings and of gum base are among the many uses of glycerine in the food industry. Among the numerous advantages of glycerine are a low caloric value of 18J/g and a sweet taste. Moreover, glycerine can act as a bacteriostat for cocoa powder and other products. The growth of bacteria is closely related to the presence of water in foodstuffs. Glycerine allows the chemical binding of water in such a way that its activity remains low enough to avoid all bacterial development.

Table 8 / composition of Glycerine

TRADE NAME	TYPE	LEGAL STATUS EU	GLYCEROL mg KOH/g	WATER	COLOR APHA
Glycerine 4808	vegetable	E 422	≥ 99.7	≤ 0.3	≤ 10
Glycerine 4833	vegetable - Kosher	E 422	≥ 99.7	≤ 0.3	≤ 10

REFRACTIVE INDEX AT 20°C	ACIDITY/ ALKALINITY	SULPHATED ASH	CHLORIDES	HALOGENATED COMPOUNDS	HEAVY METALS	ALDEHYDES
	meq/ 100g	%	ppm	ppm	ppm	ppm
≥ 1.4735	≤ 0.04	≤ 0.01	≤ 10	≤ 30	≤ 5	≤ 10
≥ 1.4735	≤ 0.04	≤ 0.01	≤ 10	≤ 30	≤ 5	≤ 10

STANDARD AVAILABILITY

Table 11

TRADE NAME	PHYSICAL FORM	BULK	CONTAINERS net weight
Rdiamuls Acetem 2030K	solid/paste	■	/
Rdiamuls Acetem 2050	solid/paste	■	/
Rdiamuls MCT 2106	liquid	■	850 kg
Rdiamuls MCT 2107K	liquid	■	850 kg
Rdiamuls Sorb 2125	paste	■	950 kg
Rdiamuls Acetem 2134	liquid	■	950 kg
Rdiamuls Sorb 2137	liquid	■	950 kg
Rdiamuls MG 2141	flakes/powder	■	/
Rdiamuls MG 2143	flakes/powder	■	/
Rdiamuls Sorb 2145	flakes/powder	■	/
Rdiamuls Sorb 2147	paste	■	950 kg
Rdiamuls MG 2151	paste	■	950 kg
Rdiamuls MG 2152	paste	■	950 kg
Rdiamuls Sorb 2156	liquid	■	950 kg
Rdiamuls Sorb 2157	liquid	■	950 kg
Rdiamuls Sorb 2160K	flakes	■	/
Rdiamuls Sorb 2161	flakes	■	/
Rdiamuls Poly 2248	flakes	■	/
Rdiamuls Poly 2253K	liquid	■	950 kg
Rdiamuls Sorb 2345K	flakes	■	/
Rdiamuls MG 2610	liquid/paste	■	/
Rdiamuls MG 2642K	flakes/powder	■	/
Rdiamuls MG 2643	flakes/powder	■	/
Rdiamuls MG 2901	powder	■	/
Rdiamuls MG 2902	liquid/paste	■	/
Rdiamuls Citrem 2931	flakes/powder	■	/
Rdiamuls Citrem 2932	flakes/powder	■	/
Rdiamuls Lactem 2950	powder	■	/
Rdiamuls Lactem 2951K	powder	■	/
Rdiamuls SL 2980	powder	■	/
Rdiamuls SL 2990	powder	■	/
Glycerine 4808	liquid	■	1000 kg or 1250 kg
Glycerine 4833	liquid	■	1000 kg or 1250 kg
Rdiacid 0132	liquid	■	/
Rdiacid 0163	liquid	■	/
Rdiacid 0122	liquid	■	/
Radia MNKE	solid	/	/
Radia EAKE	liquid	/	/
Radia MHKE	liquid	/	/

DRUMS	BUCKETS	BOXES	BAGS
net weight	net weight	net weight	net weight
175 kg - pallet 700 kg	/	18 kg - pallet 720 kg	/
175 kg - pallet 700 kg	/	18 kg - pallet 720 kg	/
175 kg - pallet 700 kg	/	/	/
175 kg - pallet 700 kg	/	/	/
175 kg - pallet 700 kg	/	/	/
175 kg - pallet 700 kg	/	/	/
175 kg - pallet 700 kg	/	/	/
/	/	/	25 kg - pallet 1000 kg
/	/	/	25 kg - pallet 1000 kg
/	/	/	25 kg - pallet 1000 kg
175 kg - pallet 700 kg	/	/	/
175 kg - pallet 700 kg	/	/	/
175 kg - pallet 700 kg	/	/	/
180 kg - pallet 700 kg	/	/	/
181 kg - pallet 700 kg	/	/	/
/	/	/	25 kg - pallet 1000 kg
/	/	/	25 kg - pallet 1000 kg
/	/	/	20 kg - pallet 1000 kg
175 kg - pallet 700 kg	25 kg - pallet 800 kg	/	/
/	/	/	25/1000 kg
175 kg - pallet 700 kg	25 kg - pallet 600 kg	/	/
/	/	/	25 kg (flakes) or 20 kg (powder) - pallet 1000 kg
/	/	/	25 kg (flakes) or 20 kg (powder) - pallet 1000 kg
/	/	/	25 kg - pallet 1000 kg
180 kg - pallet 720 kg	/	/	/
/	/	/	25 kg - pallet 1000 kg
/	/	/	25 kg (bag in box) - pallet 600 kg
/	/	/	25 kg - pallet 800 kg
/	/	/	25 kg - pallet 800 kg
/	/	/	25 kg - pallet 1000 kg
/	/	/	25 kg - pallet 1000 kg
250 kg - pallet 1000 kg	/	/	/
250 kg - pallet 1000 kg	/	/	/
180 kg - pallet 720 kg	/	/	/
180 kg - pallet 720 kg	/	/	/
180 kg - pallet 720 kg	/	/	/
165 kg	5 kg - 24 kg	/	/
165 kg	5 kg - 24 kg	/	/
165 kg	5 kg - 24 kg	/	/



oleon Glycerine

oleon
A NATURAL CHEMISTRY

RADIAMULS
TRADEMARK OF OLEON

oleon

A NATURAL CHEMISTRY

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