

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

1.1. Product identifier

Product form	: Substance
Trade name	: RADIA MNKE
IUPAC name	: Undecan-2-one (methyl nonyl ketone)
EC no.	: 203-937-5
CAS No.	: 112-12-9
REACH registration No.	: 01-2120761250-65
C&L notification reference no	: 02-2119692959-10-0000
Label name	: Methyl nonyl ketone

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

Relevant identified uses

Main use category	: Industrial use
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Title	Life cycle stage	Use descriptors
General overview of industrial uses of ketones	Industrial	PC35, PROC1, PROC2, PROC4, PROC7, PROC8b, PROC10, PROC13, ERC4
General overview of professional uses of ketones	Professional	PC31, PC35, PROC1, PROC2, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13, ERC8a
General overview of consumer uses of ketones	Consumer	PC0, PC3, PC8, PC31, PC35, PC39, ERC8a
General overview of manufacturing uses of ketones		PROC2, PROC3, PROC4, PROC8b, ERC1
General overview of formulation uses of ketones		PC0, PC28, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, PROC28, ERC2

Full text of use descriptors: see section 16

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)
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Country/Area	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]

Skin corrosion/irritation, Category 2 H315
Hazardous to the aquatic environment – Acute Hazard, Category 1 H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Hazard statements (CLP)

: H315 - Causes skin irritation.
H410 - Very toxic to aquatic life with long lasting effects.
P264 - Wash hands, forearms and face thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/attention. medical attention.
P501 - Dispose of an approved waste disposal plant to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Precautionary statements (CLP)

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Undecan-2-one (methyl nonyl ketone)	CAS No.: 112-12-9 EC no.: 203-937-5 REACH-no: 01-2120761250-65	100	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H- and EUH-statements: see section 16

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.
Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes.
Symptoms/effects after skin contact	: Tingling/irritation of the skin. Red skin.
Symptoms/effects after eye contact	: Slight irritation.
Symptoms/effects after ingestion	: Nausea. Gastrointestinal complaints.

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: Combustible. INDIRECT FIRE HAZARD: Heating may cause a fire or explosion. Temperature above flashpoint: higher fire/explosion hazard.
Explosion hazard	: No direct explosion hazard.
Reactivity in case of fire	: On burning: release of carbon monoxide/carbon dioxide.

5.3. Advice for firefighters

Other information	: No supplementary information available.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Mark the danger area. Exposure to fire/heat: have neighbourhood close doors and windows. Exposure to fire/heat: consider evacuation. Wash contaminated clothing before reuse.
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For non-emergency personnel

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

Methods for cleaning up : Clean contaminated surfaces with a soap solution. Flush/dilute with water. Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or powdered limestone.

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

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. Safety glasses.

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	: Liquid
Colour	: Colourless to light yellow.
Appearance (room temperature)	: Liquid.
Molecular mass	: 170.3 g/mol
Odour	: Characteristic. Sweet odour.
Odour threshold	: Not available
Melting point	: 12 °C (ASTM D 97; Oleon CoA; 2015)
Freezing point	: Not available
Boiling point	: 231 – 232 °C (Public literature JECFA FAO database)
HMIS Flammability	: Not available
Explosive properties	: Predicted negative.
Oxidising properties	: Predicted negative.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 101 °C (1013hPa; open cup; ASTM D92; Oleon CoA; 2015)
Auto-ignition temperature	: 255 °C (984hPa; EU A.15.; Henkel CSS; 15-17051/1-2 16-00800/1-2; 2016)
Decomposition temperature	: Flash point
pH	: Not available
Viscosity, kinematic	: ca. 1.939 mm ² /s
Viscosity, dynamic	: ca. 1.6 mPa·s (30°C)
Solubility	: Water: 10.7 mg/l (20°C; OECD105; Henkel CSS; 16-00800_15-17051/1-1; 2016)
Partition coefficient n-octanol/water (Log Kow)	: 3.69 (calculated by QSAR; KOWWIN v1.67; 2008)
Partition coefficient n-octanol/water (Log Pow)	: 3.69 (QSAR, KOWWIN)
Vapour pressure	: 0.0414 mm Hg (20°C; literature data based on EPIWIN; 1984)
Vapour pressure at 50 °C	: Not available
Density	: 825 kg/m ³ (20°C; ISO 2099 1972; Oleon CoA; 2015)
Relative density	: 0.83 (20 °C, ISO 2099: Determination of density at 20 °C)
Relative vapour density at 20°C	: 5.9
Relative density of saturated gas/air mixture	: 1
Particle characteristics	: Not applicable

9.2. Other information

Other safety characteristics

VOC content	: 100 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)
Other properties	: Gas/vapour heavier than air at 20°C, Slightly volatile
Additional information	: This product is absent from Annex 1 and Annex 2 of the Swiss ordinance 814.018 (OVOC)

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

RADIA MNKE (112-12-9)

LD50 oral rat	> 2500 mg/kg (OECD 423; literature; 2003)
Skin corrosion/irritation	: OECD 404: well-defined erythema and slight to moderate oedema with crust formation; literature; 2002
Serious eye damage/irritation	: OECD 405: no corneal or iridial effects were noted, only reversible conjunctival irritation (48h); literature data; 2002
Respiratory or skin sensitisation	: OECD 406: 0% sensitisation rate; albino guinea pig; literature data; 2002)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: OECD 471; "Evaluation of the Mutagenic Activity of Radia MNKE in Reverse Mutation Assays"; Study No. 517423; Charles River Laboratories report May 2017
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

RADIA MNKE (112-12-9)

Viscosity, kinematic	ca. 1.9 mm ² /s
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Dangerous for the environment.
Ecology - air	: Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 2024/573). Not classified as dangerous for the ozone layer (Regulation (EC) No 2024/590).

Ecology - water

: Water pollutant (surface water)
Toxic to fishes
Very toxic to invertebrates (Daphnia)
According to literature, slightly bioaccumulative
Taste alteration in fishes/aquatic organisms
Literature reports: moderately degradable in water
test: BOD 21.8% ThOD, 24h
Solvent
Pesticide
Odorant: raw material

Hazardous to the aquatic environment, short-term (acute)

: Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic)

: Very toxic to aquatic life with long lasting effects.

RADIA MNKE (112-12-9)

EC50 - Crustacea [1]	0.23 mg/l (48h; OECD TG 202; literature; 2002)
EC50 72h - Algae [1]	1.9 mg/l (inhibition of the growth rate; Pseudokirchneriella subcapitata; OECD TG 201; literature; 2008)
EC50 72h - Algae [2]	1.4 mg/l (biomass; Pseudokirchneriella subcapitata; OECD TG 201; literature; 2008)
ErC50 other aquatic plants	0.79 mg/l (ErC10; Pseudokirchneriella subcapitata; OECD TG 201; literature; 2008)
NOEC chronic algae	0.38 mg/l (NOEC for biomass and growth rate; literature; 2008)

12.2. Persistence and degradability

RADIA MNKE (112-12-9)

Persistence and degradability	Rapidly degradable
ThOD	21.8 %
BOD (% of ThOD)	21.8 % ThOD (24 h)
Biodegradation	25 % (28d; OECD TG 301B; literature data; 2002)

12.3. Bioaccumulative potential

RADIA MNKE (112-12-9)

Partition coefficient n-octanol/water (Log Pow)	3.69 (QSAR, KOWWIN)
Partition coefficient n-octanol/water (Log Kow)	3.69 (calculated by QSAR; KOWWIN v1.67; 2008)

12.4. Mobility in soil

RADIA MNKE (112-12-9)

Ecology - soil	Biodegradability in soil: no data available.
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

RADIA MNKE (112-12-9)

Other information	No supplementary information available
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SECTION 13: Disposal considerations

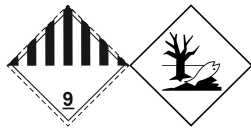
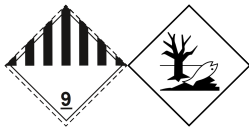
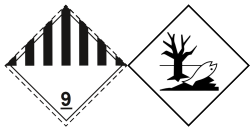
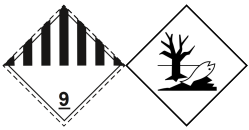
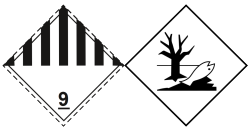
13.1. Waste treatment methods

Disposal	: Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite, Scoop absorbed substance into closing containers, Carefully collect the spill/leftovers, Clean contaminated surfaces with a soap solution, Wash clothing and equipment after handling
Regional waste regulation	: No supplementary information available.
Ecological waste information	: other organic solvents, washing liquids and mother liquors. . Hazardous waste (91/689/EEC). Recycle by distillation. Remove to an authorized incinerator equipped with an. afterburner and a flue gas scrubber. Do not discharge into surface water. packaging containing residues of or contaminated by. dangerous substances.
European List of Waste (LoW, EC 2000/532)	: No supplementary information available
HP Code	: HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Undecan-2-one (methyl nonyl ketone))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Undecan-2-one (methyl nonyl ketone))	Environmentally hazardous substance, liquid, n.o.s. (Undecan-2-one (methyl nonyl ketone))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Undecan-2-one (methyl nonyl ketone))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Undecan-2-one (methyl nonyl ketone))
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Undecan-2-one (methyl nonyl ketone)), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Undecan-2-one (methyl nonyl ketone)), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Undecan-2-one (methyl nonyl ketone)), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Undecan-2-one (methyl nonyl ketone)), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Undecan-2-one (methyl nonyl ketone)), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9

ADR	IMDG	IATA	ADN	RID
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-A EmS-No. (Spillage): S-F	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: M6
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
Orange plates	: 

Tunnel restriction code (ADR)	: -
EAC code	: •3Z

Transport by sea

Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29

Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L
Special provisions (IATA) : A97, A158, A197, A215
ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M6
Special provisions (ADN) : 274, 335, 375, 601
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : M6
Special provisions (RID) : 274, 335, 375, 601
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions (RID) : TP1, TP29
Tank codes for RID tanks (RID) : LGBV
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

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 : 100 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)

Seveso Directive (Disaster Risk Reduction)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1	100	200

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, EU REACH, IECSC, INSQ, Japan ENCS, Japan ISHL, KECL, NCI, NZIoC, PICCS, TCSI, TECI_DIW, TECI_FDA, TR EAEU, TSCA

KKDIK number (Turkey) : 05-0000212167-56-0000

K-REACH (Korea) : not 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.61 of the Chemicals Ordinance (ChemO)

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 6002).

VOC content : 100 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)

Netherlands

ABM category : B(1) - highly toxic for aquatic organisms

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

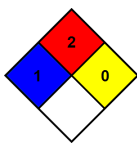
SZW List of Reprotoxic Substances – Fertility : The substance is not listed

SZW List of Reprotoxic Substances – Development : The substance is not listed

15.2. Chemical safety assessment

Please contact Oleon for further information (sds@oleon.com)

SECTION 16: Other information

Training advice	: No supplementary information available.
Chemical inventories legend	: AICIS = Australian Inventory of Industrial Chemicals DSL = Canadian Domestic Substances 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 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	: 1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard	: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures 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 H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of use descriptors

ERC1	Manufacture of the substance
ERC2	Formulation into mixture
ERC4	Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

Full text of use descriptors

ERC8a	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
PC0	Other
PC28	Perfumes, fragrances
PC3	Air care products
PC31	Polishes and wax blends
PC35	Washing and cleaning products
PC39	Cosmetics, personal care products
PC8	Biocidal products
PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC10	Roller application or brushing
PROC11	Non industrial spraying
PROC13	Treatment of articles by dipping and pouring
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC28	Manual maintenance (cleaning and repair) of machinery
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
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)

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.