

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

1.1. Product identifier

Product form	: Substance
Trade name	: RADIA EAKE
IUPAC name	: Octan-3-one (ethyl amyl ketone)
EC no.	: 203-423-0
CAS No.	: 106-68-3
REACH registration No.	: 01-2120761249-48
C&L notification reference no	: 02-2119692933-24-0000
Label name	: Ethyl amyl 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]

Flammable liquids, Category 3 H226

Skin corrosion/irritation, Category 2 H315

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)



GHS02

GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.

H315 - Causes skin irritation.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P233 - Keep container tightly closed.

P240 - Ground and bond container and receiving equipment.

P241 - Use explosion-proof electrical equipment.

P264 - Wash hands, forearms and face thoroughly after handling.

P280 - Wear face protection, protective clothing, protective gloves.

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]
Octan-3-one (ethyl amyl ketone)	CAS No.: 106-68-3 EC no.: 203-423-0 REACH-no: 01-2120761249-48	≤ 100	Flam. Liq. 3, H226 Skin Irrit. 2, H315

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. Central nervous system depression. Dizziness. Headache. Narcosis.
Symptoms/effects after skin contact	: Tingling/irritation of the skin.
Symptoms/effects after eye contact	: No effects known.

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	: Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (not alcohol-resistant).
Unsuitable extinguishing media	: Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

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.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: No specific fire-fighting instructions required.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus (EN 136 + EN 137).
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. 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

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|----------------------|---|
| Protective equipment | : Gloves (EN 374). Face shield (EN ISO 16321). Protective clothing (EN 14605, EN 13034). |
| Emergency procedures | : Mark the danger area. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Wash contaminated clothing before reuse. Large spills/in confined spaces: consider evacuation. |

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

- | | |
|-------------------------|--|
| For containment | : Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills. Heating: dilute combustible gas/vapour with water curtain. |
| Methods for cleaning up | : Take up liquid spill into inert absorbent material. Absorb with an inert material and place in an appropriate waste disposal container. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling. |
| Other information | : No supplementary information available. |

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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|-------------------------------|---|
| Precautions for safe handling | : Take precautions against electrostatic charges. Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with applicable regulations. Wash contaminated clothing before reuse. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Keep container tightly closed. |
| Handling temperature | : ≥ 10 °C above melting point |

7.2. Conditions for safe storage, including any incompatibilities

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|------------------------------|--|
| Heat and ignition sources | : KEEP AWAY FROM: heat sources. 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. Safety glasses.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Face shield (EN ISO 16321)

Skin protection

Skin and body protection:

Protective clothing (EN 14605 or EN 13034)

Hand protection:

Protective gloves against chemicals (EN 374)

Other skin protection

Materials for protective clothing:

Good resistance: Nitrile rubber

Respiratory protection

Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance (room temperature)	: Liquid.
Molecular mass	: 128.2 g/mol
Odour	: Characteristic. Sweet odour.
Odour threshold	: Not available
Melting point	: - 23 °C (ASTM D97; Oleon NV; 2015)
Freezing point	: Not available
Boiling point	: 169 – 173 °C (public literature JECFA FAO database; similar to OECD 103; 1998)
HMIS Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 54 °C (DIN EN ISO 1523:2002-08; closed cup; 2026)
Auto-ignition temperature	: 365 °C (1017-1018 hPa; EC A.15; 2015)
Decomposition temperature	: Not available

pH	: Not available
Viscosity, kinematic	: ca. 1 mm ² /s (20°C)
Viscosity, dynamic	: ca. 0.8 mPa·s (20°C)
Solubility	: Water: 647 mg/l (OECD 105; Henkel CSS; 16-00799_15-17049/1-1; 2016) Ethanol: complete Ether: complete
Partition coefficient n-octanol/water (Log Kow)	: 2.9 (HPLC method; 32°C; pH=7; OECD 117; Charles River Laboratories; 2017)
Vapour pressure	: 0.276 kPa (literature data; 20°C; Lande SS, et al; 1976)
Vapour pressure at 50 °C	: 11 hPa
Density	: 820 kg/m ³ (ISO 2099; Oleon NV; 2015)
Relative density	: 0.82 (20 °C, Equivalent or similar to EU Method A.3)
Relative vapour density at 20°C	: 4.4
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	: No supplementary information available
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 EAKE (106-68-3)

LD50 oral rat	5000 mg/kg bodyweight (literature data; similar to OECD 401)
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RADIA EAKE (106-68-3)

LD50 dermal rat	> 5000 mg/kg bodyweight (literature data; similar to OECD 402)
Skin corrosion/irritation	: OECD TG 404 on read across substance Methyl n-amyl ketone (MAK): Well-defined erythema and very slight or slight oedema were noted at all treated skin sites at the 24, 48 and 72-Hour observations.
Serious eye damage/irritation	: OECD TG 405 on read across substance Methyl n-amyl ketone (MAK): the effects were fully reversible, no corneal opacity or iritis was observed, and conjunctival effects of grade 2 were observed at 24h in one animal only
Respiratory or skin sensitisation	: OECD TG 429 on read across substance Methyl n-amyl ketone (MAK): the test item was considered to be a non-sensitiser under the conditions of the test.
Germ cell mutagenicity	: Not classified
Additional information	: OECD 471; "Evaluation of the Mutagenic Activity of Radia EAKE in Reverse Mutation Assays"; Study No. 515040; Charles River Laboratories report November 2016
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

RADIA EAKE (106-68-3)

Viscosity, kinematic	ca. 1 mm ² /s (20°C)
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Ecology - air	: Not dangerous for the ozone layer (Council Regulation (EC). No 2037/2000, O.J. L244 of 29/09/2000). TA Luft Class 5.2.5.
Ecology - water	: No data available concerning bioaccumulation
Ecology - water	: Harmful to crustacea (Daphnia). Harmful to fishes. Acute toxicity algae or other aquatic plants: insufficient data available.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

RADIA EAKE (106-68-3)

LC50 - Fish [1]	74 – 77 mg/l (Leuciscus idus, Static system, Literature study)
EC50 - Crustacea [1]	21 mg/l (48h; Acute Immobilisation Test; OECD 202; Study No. 515769; Charles River Laboratories; 2017)
EC50 - Crustacea [2]	27 mg/l (24h; Acute Immobilisation Test; OECD 202; Study No. 515769; Charles River Laboratories; 2017)

RADIA EAKE (106-68-3)

ErC50 algae	> 82 mg/l (72h; growth rate; OECD 201; Study No. 515770; Charles River Laboratories; 2017)
NOEC chronic algae	36 mg/l (72h; growth rate; 2017)

12.2. Persistence and degradability

RADIA EAKE (106-68-3)

Persistence and degradability	Readily biodegradable in water.
Biodegradation	> 60 % (read across from Nonan-2-one (MHK); OECD 301D; 2017)

12.3. Bioaccumulative potential

RADIA EAKE (106-68-3)

Partition coefficient n-octanol/water (Log Kow)	2.9 (HPLC method; 32°C; pH=7; OECD 117; Charles River Laboratories; 2017)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

RADIA EAKE (106-68-3)

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 EAKE (106-68-3)

Other information	No supplementary information available
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal	: Prevent dispersion by covering with dry absorbent, Scoop solid spill into closing containers, Scoop absorbed substance into closing containers, Clean contaminated surfaces with an excess of water and soap solution, Wash clothing and equipment after handling
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

HP Code

: HP3 - "Flammable:"
– flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
– flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
– flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
– flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
– water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
– other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.
HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

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 2271	UN 2271	UN 2271	UN 2271	UN 2271
14.2. UN proper shipping name				
ETHYL AMYL KETONE	ETHYL AMYL KETONES	Ethyl amyl ketone	ETHYL AMYL KETONE	ETHYL AMYL KETONE
Transport document description				
UN 2271 ETHYL AMYL KETONE, 3, III, (D/E)	UN 2271 ETHYL AMYL KETONES, 3, III	UN 2271 Ethyl amyl ketone, 3, III	UN 2271 ETHYL AMYL KETONE, 3, III	UN 2271 ETHYL AMYL KETONE, 3, III
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-E EmS-No. (Spillage): S-D	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)	: Subject to the provisions
Classification code (ADR)	: F1
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: 3Y

Transport by sea

Transport regulations (IMDG)	: Subject to the provisions
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Colourless liquids. Vapour is much heavier than air (4.4). ETHYL normal- AMYL KETONE: flashpoint 43°C c.c. ETHYL secondary-AMYL KETONE: flashpoint 57°C c.c. Immiscible with water. Dissolves some types of plastics. Irritating to skin, eyes and mucous membranes.

Air transport

Transport regulations (IATA)	: Subject to the provisions
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
ERG code (IATA)	: 3L

Inland waterway transport

Classification code (ADN)	: F1
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EX, A

Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 0

Rail transport

Transport regulations (RID) : Subject to the provisions
Classification code (RID) : F1
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T2
Portable tank and bulk container special provisions (RID) : TP1
Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE4
Hazard identification number (RID) : 30

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
P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b	5000	50000

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, TR EAEU, TSCA
KKDIK number (Turkey)	: not preregistered
K-REACH (Korea)	: not preregistered
UK-REACH (Great Britain)	: No DUIN submitted (max.1tpa)
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 1, Slightly hazardous to water (Classification according to AwSV; ID No. 98).
VOC content	: 100 % (1999/13/EC; 2004/42/EC; 2010/75/EU; SR 814.018)

Netherlands

ABM category	: B(3) - hazardous 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

Denmark

Class for fire hazard	: Class II-1
Store unit	: 5 liter
Classification remarks	: R10 <H226;H315>; Emergency management guidelines for the storage of flammable liquids must be followed

15.2. Chemical safety assessment

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

SECTION 16: Other information

Training advice	: No supplementary information available.
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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
TR EAEU = Eurasian Economic Union Unified list of chemicals
TSCA = USA Toxic Substances Control Act

SDS changed sections

: 5 - Firefighting measures; 7 - Handling and storage

SDS Reason for revision

: No supplementary information available

NFPA health hazard

: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

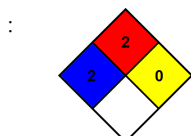
NFPA fire hazard

: 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:

Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H226	Flammable liquid and vapour.
H315	Causes skin irritation.

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)
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

Full text of use descriptors

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.