SAFETY DATA SHEET according to regulation 1907/2006

Product name: 8024 Drying Aid Manual

Creation date: 26.05.2021, Revision: 27.05.2021, version: 1.1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

8024 Drying Aid Manual

https://my.chemius.net/p/EwePsd/en/pd/en

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

Relevant identified uses

Car Wax

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier

SILCO, D.O.O.
Šentrupert 5 a
3303 Gomilsko, Slovenia
+386 3 703 3180
n.cvilak@silco-automotive.com

1.4 Emergency Telephone Number

Emergency

112

Supplier

+386 3 703 3180

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Skin Irrit. 2; H315 Causes skin irritation.
Eye Dam. 1; H318 Causes serious eye damage.
Aquatic Acute 1; H400 Very toxic to aquatic life.
Aquatic Chronic 1; H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

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

Signal word: Danger

H315 Causes skin irritation.
H318 Causes serious eye damage.
H410 Very toxic to aquatic life with long lasting effects.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P391 Collect spillage.

Contains:
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines
acetic acid
2-methylpropan-1-ol

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

NAME	CAS EC INDEX REACH	%	CLASSIFICATION ACCORDING TO REGULATION (EC) NO 1272/2008 (CLP)	SPECIFIC CONC. LIMITS	NOTES FOR SUBSTANCES
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0 01-2119475108-36	8 ≤ x < 10	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332	/	/
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	1213789-63-9 627-034-4 - 01-2119473797-19	3 ≤ x < 4	Acute Tox. 4; H302 Asp. Tox. 1; H304 Skin Corr. 1B; H314.1B STOT SE 3; H335 STOT RE 2; H373 Aquatic Acute 1; H400.10 Aquatic Chronic 1; H410.10	/	/
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	- 931-216-1 - 01-2119472309-33	2 ≤ x < 3	Skin Irrit. 2; H315 Eye Irrit. 2; H319	/	/

2,2,4,6,6-pentamethylheptane	13475-82-6 236-757-0 - 01-2119490725-29	1 ≤ x < 2	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Aquatic Chronic 4; H413 EUH066	/	/
acetic acid	64-19-7 200-580-7 607-002-00-6 01-2119475328-30	1 ≤ x < 2	Flam. Liq. 3; H226 Skin Corr. 1A; H314.1A	Skin Corr. 1A; H314.1A; C ≥ 90% Skin Corr. 1B; H314.1B; 25% ≤ C < 90% Skin Irrit. 2; H315; 10% ≤ C < 25% Eye Irrit. 2; H319; 10% ≤ C < 25%	B
2-methylpropan-1-ol	78-83-1 201-148-0 603-108-00-1 01-2119484609-23	1 ≤ x < 2	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 STOT SE 3; H336	/	/
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	- 926-141-6 - 01-2119456620-43	1 ≤ x < 2	Asp. Tox. 1; H304 EUH066	/	/
2,2'-(octadec-9-enylimino)bisethanol	25307-17-9 246-807-3 - 01-2119510876-35	0,607 ≤ x < 0,707	Acute Tox. 4; H302 Skin Corr. 1B; H314.1B Eye Dam. 1; H318 Aquatic Acute 1; H400.10 Aquatic Chronic 1; H410	/	/

Notes for substances

B	Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: "nitric acid ... %". In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

SECTION 4: FIRST AID MEASURES

4.1 First aid measures

General notes

When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician. Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. Person giving first aid should properly protect himself.

Following inhalation

Remove patient to fresh air - move out of dangerous area. Keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained

personnel. Seek medical help immediately.

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. Consult a physician.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician immediately!

Following ingestion

Drink plenty of water in small sips. Do not induce vomiting without prior consultation with a doctor. Never give anything by mouth to an unconscious person. Immediately consult a doctor. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation.

Following skin contact

Itching, redness, pain.

Following eye contact

Discomfort or pain, excessive blinking, lacrimation and redness, swelling of the conjunctiva.

Following ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort.

4.3 Indication of any immediate medical attention and special treatment needed

No information.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke.

5.3 Advice for firefighters

Protective actions

In case of fire evacuate the area. In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Cool the endangered containers with water spray.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Precautionary measures

Ensure adequate ventilation.

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate the danger zone. Prevent access to unprotected personnel. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Make sure the leakage site is well aired. Dispose in accordance with applicable regulations (see Section 13).

OTHER INFORMATION

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Vapours are heavier than air and spread along the floor. They form explosive mixtures with air. Take precautionary measures against static discharges.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Wear suitable protective equipment; see Section 8. Remove contaminated clothes and wash them before reuse. Before entering areas where food is eaten, remove contaminated clothing and protective equipment. Refer to instructions on label and regulations for safety and health at work.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Store in accordance with local regulations. Keep in well closed containers. Keep in a cool, dry and well ventilated place. Keep away from sources of ignition - no smoking. Keep away from incompatible products (see section 10). Keep away from food, drink and animal feeding stuffs.

Packaging materials
Store only in original container.

Requirements for storage rooms and vessels
Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage class
No information.

Further information on storage conditions
No information.

7.3 Specific end use(s)

Recommendations
No information.

Industrial sector specific solutions
No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

NAME	MG/M^3	ML/M^3	SHORT-TERM VALUE MG/M^3	SHORT-TERM VALUE ML/M^3	REMARK	BIOLOGICAL TOLERANCE VALUES
2-Butoxyethanol (111-76-2)	123	25	246	50	Sk, BMGV	240 mmol butoxyacetic acid/mol creatinine in urine - Post shift
Acetic acid (64-19-7)	25	10	50	20	/	/

Information on monitoring procedures
BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents.

DNEL/DMEL values

For product
No information.

For components

NAME	TYPE	EXPOSURE ROUTE	EXP. FREQUENCY	REMARK	VALUE
2-butoxyethanol	Worker	inhalation	long term systemic effects	/	98 mg/m³
2-butoxyethanol	Worker	inhalation	short term systemic effects	/	1091 mg/m³
2-butoxyethanol	Worker	inhalation	short term local effects	/	246 mg/m³
2-butoxyethanol	Worker	dermal	long term systemic effects	/	125 mg/kg bw/day

2-butoxyethanol	Worker	dermal	short term systemic effects	/	89 mg/kg bw/day
2-butoxyethanol	Consumer	inhalation	long term systemic effects	/	59 mg/m³
2-butoxyethanol	Consumer	inhalation	short term systemic effects	/	426 mg/m³
2-butoxyethanol	Consumer	inhalation	short term local effects	/	147 mg/m³
2-butoxyethanol	Consumer	dermal	long term systemic effects	/	75 mg/kg bw/day
2-butoxyethanol	Consumer	dermal	short term systemic effects	/	89 mg/kg bw/day
2-butoxyethanol	Consumer	oral	long term systemic effects	/	6.3 mg/kg bw/day
2-butoxyethanol	Consumer	oral	short term systemic effects	/	26.7 mg/kg bw/day
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	Worker	inhalation	long term systemic effects	/	0.38 mg/m³
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	Worker	inhalation	long term local effects	/	1 mg/m³
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	Worker	inhalation	short term local effects	/	1 mg/m³
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	Consumer	inhalation	long term systemic effects	/	0.035 mg/m³
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	Consumer	oral	long term systemic effects	/	40 ug/kg bw/day
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Worker	inhalation	long term systemic effects	/	44 mg/m³
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Worker	dermal	long term systemic effects	/	312.5 mg/kg bw/day
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Consumer	inhalation	long term systemic effects	/	13 mg/m³
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Consumer	dermal	long term systemic effects	/	187.5 mg/kg bw/day
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Consumer	oral	long term systemic effects	/	7.5 mg/kg bw/day
acetic acid	Worker	inhalation	long term local effects	/	25 mg/m³

acetic acid	Worker	inhalation	short term local effects	/	25 mg/m³
acetic acid	Consumer	inhalation	long term local effects	/	25 mg/m³
acetic acid	Consumer	inhalation	short term local effects	/	25 mg/m³
2-methylpropan-1-ol	Worker	inhalation	long term local effects	/	310 mg/m³
2-methylpropan-1-ol	Consumer	inhalation	long term local effects	/	55 mg/m³
2,2'-(octadec-9-enylimino)bisethanol	Worker	inhalation	long term systemic effects	/	2.112 mg/m³
2,2'-(octadec-9-enylimino)bisethanol	Worker	dermal	long term systemic effects	/	0.3 mg/kg bw/day
2,2'-(octadec-9-enylimino)bisethanol	Consumer	inhalation	long term systemic effects	/	0.745 mg/m³
2,2'-(octadec-9-enylimino)bisethanol	Consumer	dermal	long term systemic effects	/	0.214 mg/kg bw/day
2,2'-(octadec-9-enylimino)bisethanol	Consumer	oral	long term systemic effects	/	0.214 mg/kg bw/day

PNEC values

For product

No information.

For components

NAME	EXPOSURE ROUTE	REMARK	VALUE
2-butoxyethanol	fresh water	/	8.8 mg/L
2-butoxyethanol	water, intermittent release	/	26.4 mg/L
2-butoxyethanol	marine water	/	0.88 mg/L
2-butoxyethanol	water treatment plant	/	463 mg/L
2-butoxyethanol	fresh water sediment	dry weight	34.6 mg/kg
2-butoxyethanol	marine water sediment	dry weight	3.46 mg/kg
2-butoxyethanol	soil	dry weight	2.33 mg/kg
2-butoxyethanol	secondary poisoning	food	0.02 g/kg
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	fresh water	/	0.26 µg/l

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	water, intermittent release	/	1.6 µg/l
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	marine water	/	0.026 µg/l
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	water treatment plant	/	550 µg/l
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	fresh water sediment	dry weight	3.76 mg/kg
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	marine water sediment	dry weight	0.376 mg/kg
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	soil	dry weight	10 mg/kg
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	fresh water	/	0.002 mg/L
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	water, intermittent release	/	0.019 mg/L
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	marine water	/	0 mg/L
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	water treatment plant	/	2.96 mg/L
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	fresh water sediment	dry weight	0.58 mg/kg
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	marine water sediment	dry weight	0.058 mg/kg
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	soil	dry weight	0.115 mg/kg
acetic acid	fresh water	/	3.058 mg/L
acetic acid	water, intermittent release	/	30.58 mg/L
acetic acid	marine water	/	0.306 mg/L
acetic acid	water treatment plant	/	85 mg/L
acetic acid	fresh water sediment	dry weight	11.36 mg/kg
acetic acid	marine water sediment	dry weight	1.136 mg/kg
acetic acid	soil	dry weight	0.47 mg/kg
2-methylpropan-1-ol	fresh water	/	0.4 mg/L
2-methylpropan-1-ol	water, intermittent release	/	11 mg/L
2-methylpropan-1-ol	marine water	/	0.04 mg/L
2-methylpropan-1-ol	water treatment plant	/	10 mg/L

2-methylpropan-1-ol	fresh water sediment	dry weight	1.56 mg/kg
2-methylpropan-1-ol	marine water sediment	dry weight	0.156 mg/kg
2-methylpropan-1-ol	soil	dry weight	0.076 mg/kg
2,2'-(octadec-9-enylimino)bisethanol	fresh water	/	0.214 µg/l
2,2'-(octadec-9-enylimino)bisethanol	water, intermittent release	/	0.87 µg/l
2,2'-(octadec-9-enylimino)bisethanol	marine water	/	0.021 µg/l
2,2'-(octadec-9-enylimino)bisethanol	water treatment plant	/	1500 µg/l
2,2'-(octadec-9-enylimino)bisethanol	fresh water sediment	dry weight	1.692 mg/kg
2,2'-(octadec-9-enylimino)bisethanol	marine water sediment	dry weight	0.169 mg/kg
2,2'-(octadec-9-enylimino)bisethanol	soil	dry weight	5 mg/kg
2,2'-(octadec-9-enylimino)bisethanol	secondary poisoning	food	2 mg/kg

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units and emergency showers available.

Technical measures to prevent exposure

The use of adequate technical equipment must always take priority over personal protective equipment. Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Tight fitting protective goggles (EN 166).

Hand protection

Protective gloves (EN 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The penetration time is determined by the protective glove manufacturer and must be observed.

Appropriate materials

Skin protection

Wear category II professional long-sleeved overalls and safety footwear (see Regulation (EU) 2016/425 and standard EN ISO 20344). Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345). Protective work clothing

resistant to liquid chemicals (EN 14605).

Respiratory protection

At elevated concentrations of vapours/aerosols in the air wear a mask (EN 140) with filter A2-P2 (EN 14387). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded. For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard EN 137, EN 138.

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour

red

Odour

pungent

Important health, safety and environmental information

Odour threshold	No information.
pH	4
Melting point/Freezing point	No information.
Initial boiling point/boiling range	No information.
Flash point	> 60 °C
Evaporation rate	No information.
Flammability (solid, gas)	No information.
Explosion limits (vol%)	No information.
Vapour pressure	No information.
Vapour density	No information.
Density / weight	Relative density: 0.954
Solubility	Water: miscible
Partition coefficient	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.

Viscosity	No information.
Explosive properties	Product is not explosive.
Oxidising properties	Not oxidising.

9.2 OTHER INFORMATION

Solids content	11.86 % (250 °C)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.

10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks. Heating.

10.5 Incompatible materials

Oxidants.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a) Acute toxicity

For product

EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	METHOD	REMARK
inhalation	ATE	/	/	> 20 mg/l	/	/
oral	ATE	/	/	> 2000 mg/kg	/	/
dermal	ATE	/	/	> 2000 mg/kg	/	/

For components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	METHOD	REMARK
2-butoxyethanol	oral	LD_{50}	rat	/	1300 mg/kg	/	/
2-butoxyethanol	dermal	LD_{50}	rabbit	/	> 2000 mg/kg	/	/
2-butoxyethanol	inhalation	LC_{50}	rat	7 h	> 400 mg/l	/	/
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	oral	LD_{50}	/	/	1689 mg/kg	/	/
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	dermal	LD_{50}	/	/	> 2000 mg/kg	/	/
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	inhalation	LC_{50}	/	1 h	> 0.099 mg/l	/	/
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	oral	LD_{50}	rat	/	5000 mg/kg	/	/
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	dermal	LD_{50}	/	/	> 2000 mg/kg	/	/
2,2,4,6,6-pentamethylheptane	oral	LD_{50}	rat	/	> 5000 mg/kg	/	/
2,2,4,6,6-pentamethylheptane	dermal	LD_{50}	rabbit	/	> 3160 mg/kg	/	/
2,2,4,6,6-pentamethylheptane	inhalation	LC_{50}	rat	4 h	> 4951 mg/l	/	/
acetic acid	oral	LD_{50}	rat	/	3310 mg/kg	/	/
acetic acid	inhalation	LC_{50}	rat	4 h	40 mg/l	/	/
2-methylpropan-1-ol	inhalation	LC_{50}	rat	4 h	24.6 mg/l	/	/
2-methylpropan-1-ol	oral	LD_{50}	rat	/	> 2830 mg/kg	/	/
2-methylpropan-1-ol	dermal	LD_{50}	rabbit	/	> 2000 mg/kg	/	/
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	oral	LD_{50}	rat	/	> 5000 mg/kg	/	/
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	dermal	LD_{50}	rabbit	/	> 5000 mg/kg	/	/
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	inhalation	LC_{50}	rat	8 h	> 5000 mg/m^3	/	/
2,2'-(octadec-9-enylimino)bisethanol	oral	LD_{50}	rat	/	1260 mg/kg	/	/

Additional information

The product is not classified for acute toxicity.

(b) Skin corrosion/irritation

No information.

Additional information

Causes skin irritation.

(c) Serious eye damage/irritation

No information.

Additional information

Causes serious eye damage.

(d) Respiratory or skin sensitisation

No information.

Additional information

The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

Additional information

STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure

No information.

Additional information

STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information

Aspiration hazard: Not classified.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK
2-butoxyethanol	LC_{50}	1.474 mg/L	96 h	fish	*Lepomis macrochirus*	/	/
2-butoxyethanol	EC_{50}	1.55	48 h	crustacea	*Daphnia magna*	/	/
2-butoxyethanol	EC_{50}	1.84 mg/L	72 h	algae	/	/	/
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	LC_{50}	< 0.06	96 h	fish	/	/	/
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	EC_{50}	< 0.011 mg/L	48 h	crustacea	/	/	/

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	EC_{50}	< 0.46 mg/L	72 h	algae	/	/	/
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	LC_{50}	1.91	96 h	fish	/	/	/
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	EC_{50}	2.23 mg/L	48 h	crustacea	/	/	/
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	EC_{50}	2.14 mg/L	72 h	algae	/	/	/
2,2,4,6,6-pentamethylheptane	LC_{50}	> 1000	96 h	fish	/	/	/
acetic acid	LC_{50}	> 300.82 mg/L	96 h	fish	/	/	/
acetic acid	EC_{50}	> 300.82 mg/L	48 h	crustacea	/	/	/
acetic acid	EC_{50}	> 300.82 mg/L	72 h	algae	/	/	/
2-methylpropan-1-ol	LC_{50}	1430	96 h	fish	/	/	/
2-methylpropan-1-ol	EC_{50}	1000 mg/L	48 h	crustacea	/	/	/
2-methylpropan-1-ol	EC_{50}	1799 mg/L	72 h	algae	/	/	/
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	LC_{50}	> 1000	96 h	fish	/	/	/
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC_{50}	> 1000	48 h	crustacea	*Daphnia magna*	/	/
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC_{50}	> 1000 mg/L	72 h	algae	*Pseudokirchneriella subcapitata*	/	/
2,2'-(octadec-9-enylimino)bisethanol	LC_{50}	100 µg/l	/	fish	Carrasius auratus	/	/
2,2'-(octadec-9-enylimino)bisethanol	EC_{50}	43 µg/l	/	crustacea	*Daphnia*	/	/
2,2'-(octadec-9-enylimino)bisethanol	EC_{50}	53.8 µg/l	/	algae	/	/	/
2,2'-(octadec-9-enylimino)bisethanol	EC_{10}	10.7 µg/l	/	algae	/	/	/

Chronic (long-term) toxicity
For components

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK

2-butoxyethanol	NOEC	> 100 mg/l	/	fish	/	/	/
2-butoxyethanol	NOEC	100 mg/l	/	crustacea	/	/	/
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	NOEC	0.013 mg/l	/	algae	/	/	/

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

For components

NAME	TYPE	RATE	TIME	EVALUATION	METHOD	REMARK
2-butoxyethanol	-	/	/	rapidly biodegradable	/	/
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	-	/	/	rapidly biodegradable	/	/
fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	-	/	/	rapidly biodegradable	/	/
2,2,4,6,6-pentamethylheptane	-	/	/	rapidly biodegradable	/	/
acetic acid	-	/	/	rapidly biodegradable	/	/
2-methylpropan-1-ol	-	/	/	rapidly biodegradable	/	/
hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	-	/	/	rapidly biodegradable	/	/
2,2'-(octadec-9-enylimino)bisethanol	-	/	/	rapidly biodegradable	/	/

12.3 Bioaccumulative potential

Partition coefficient

For components

NAME	MEDIA	VALUE	TEMPERATURE	PH	CONCENTRATION	METHOD
2-butoxyethanol	Octanol-water (log Pow)	0.81	/	/	/	/
acetic acid	Octanol-water (log Pow)	0.17	/	/	/	/
2-methylpropan-1-ol	Octanol-water (log Pow)	1	/	/	/	/

Bioconcentration factor (BCF)

For components

NAME	SPECIES	ORGANISM	VALUE	DURATION	EVALUATION	METHOD	REMARK

2-butoxyethanol	BCF	/	2.5	/	/	/	/

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

For components

NAME	TYPE	CRITERION	VALUE	EVALUATION	METHOD	REMARK
acetic acid	Soil	/	1.153	/	/	soil / water distribution coefficient
2-methylpropan-1-ol	Soil	/	0.31	/	/	soil / water distribution coefficient

12.5 Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances in percentages greater than 0.1%.

12.6 Other adverse effects

No information.

12.7 Additional information

For product

Very toxic to aquatic life with long lasting effects. Do not allow to reach ground water, water courses or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Dispose of in accordance with applicable waste disposal regulation. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

Waste codes / waste designations according to LoW

No information.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

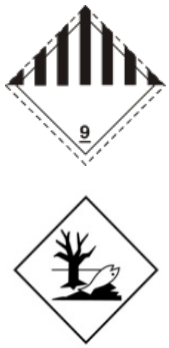
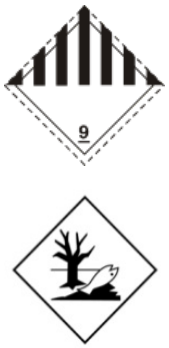
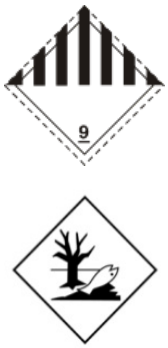
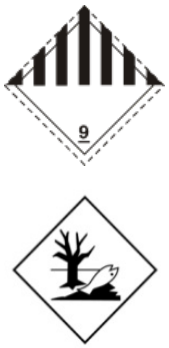
Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
14.1 UN number			
UN 3082	UN 3082	UN 3082	UN 3082
14.2 UN proper shipping name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3 Transport hazard class(es)			
9	9	9	9
			
14.4 Packing group			
III	III	III	III
14.5 Environmental hazards			
YES	Marine pollutant	YES	YES
14.6 Special precautions for user			
Limited quantities 5 L Transport category 3 Tunnel restriction code (-)	Limited quantities 5 L EmS F-A, S-F Special provisions 274, 335, 375, 601 Packing Instructions P001, IBC03, LP01, R001 Special packing provisions PP1 Tank instructions T4 Tank special provisions TP1, TP29 Excepted quantities 32 IBC Packing Instructions 32	Limited Quantity Packing Instructions Y964 Limited Quantity Net Qty 30 kg G Passenger Packing Instruction Packing Instructions 964 Passenger Packing Instruction Net Qty 25 L Cargo Packing Instruction Packing Instructions 964 Cargo Packing Instruction Net Qty 25 L Special provisions A97, A158, A197	Limited quantities 5 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code			
Goods may not be carried in bulk in bulk containers, containers or vehicles.	Goods may not be carried in bulk in bulk containers, containers or vehicles.	Not given/not applicable	Not given/not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)(including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)
not applicable

Regulation EC 648/2004 on detergents
No information.

Special instructions
Observe the regulations on employment and protection against dangerous substances for young people, pregnant women and nursing mothers. Seveso: E1 - Hazardous to the aquatic environment. Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 3, 40.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes
3.2 Mixtures 7.2 Conditions for safe storage, including any incompatibilities 8.1 Control parameters 11.1 Information on toxicological effects 12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential 12.4 Mobility in soil 12.7 Additional information

Key literature references and sources for data
No information.

Abbreviations and acronyms
ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario

GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H410 Very toxic to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.