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

1.1. Product identifier

Trade name/designation : Fatty acids, C10-18 and C12-22-unsatd., C14-18 and C16-18-unsatd. alkyl esters

EC No : 285-200-8

CAS No. : 85049-31-6

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

Main use category : Industrial use, Professional use, Consumer use

1.3. Details of the supplier of the safety data sheet

Company : Mercuria Energy Trading B.V. supplying for and on behalf of Mercuria Energy Trading S.A
Herculesplein 108
3584AA Utrecht , Netherlands
Telephone +41 22 594 7000
Telefax: +41 22 594 3904
E-mail: emergency@sgs.com

1.4. Emergency telephone number

Emergency telephone : +32 3 575 11 30 (SGS 24/7 Emergency Hotline)

IRELAND (REPUBLIC OF)
National Poisons Information Centre
Beaumont Hospital : +353 18 37 99 64/+353 1 809 21 66

UNITED KINGDOM
National Poisons Information Service
(Newcastle Centre) : 0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
Regional Drugs and Therapeutics Centre,
Wolfson Unit

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EU) 1272/2008

CLP-Classification : This substance is classified as not hazardous according to regulation (EC) No. 1272/2008 [CLP].

Not classified

2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC

Classification : This substance is classified as not hazardous according to 67/548/EEC.

Not classified


2.2. Label elements

2.2.1. Labelling according to Regulation (EU) 1272/2008

Not applicable.

2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

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2.3. Other hazards

Other hazards : This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
Fatty acids, C10-18 and C12-22-unsatd., C14-18 and C16-18-unsatd. alkyl esters	(CAS No.) 85049-31-6 (EC No) 285-200-8	100	Not classified

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Fatty acids, C10-18 and C12-22-unsatd., C14-18 and C16-18-unsatd. alkyl esters	(CAS No.) 85049-31-6 (EC No) 285-200-8	100	Not classified

Full text of R- and H-phrases: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures


Inhalation	: Remove person to fresh air and keep comfortable for breathing. When in doubt or if symptoms are observed, get medical advice.
Skin contact	: Take off contaminated clothing. Gently wash with plenty of soap and water. When in doubt or if symptoms are observed, get medical advice.
Eye contact	: Rinse immediately carefully and thoroughly with eye-bath or water. When in doubt or if symptoms are observed, get medical advice.
In case of ingestion	: Rinse mouth thoroughly with water. Get medical advice/attention.
Additional advice	: First aider: Pay attention to self-protection! Personal protection equipment: see section 8 Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice. Show this safety data sheet to the doctor in attendance. Treat symptomatically.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	: No adverse effects are expected.
Skin contact	: No adverse effects are expected.
Eye contact	: No adverse effects are expected.
Ingestion	: No adverse effects are expected.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray, alcohol resistant foam, Dry extinguishing powder, Carbon dioxide

Extinguishing media which must not be used for safety reasons : Strong water jet

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible

Specific hazards : Heating causes rise in pressure with risk of bursting.
Hazardous combustion products:
Carbon oxides

5.3. Advice for firefighters

Advice for firefighters : Special protective equipment for firefighters.
In case of fire: Wear self-contained breathing apparatus.
Use water spray jet to protect personnel and to cool endangered containers.
Do not allow run-off from fire-fighting to enter drains or water courses.
Dispose according to legislation.
Evacuate area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Evacuate area.
Stay upwind/keep distance from source.
Provide adequate ventilation.
Use personal protective equipment as required.
Personal protection equipment: see section 8
Do not breathe vapour/spray.

For emergency responders : Avoid contact with skin, eyes and clothes.
: Ensure procedures and training for emergency decontamination and disposal are in place.
Personal protection equipment: see section 8.

6.2. Environmental precautions


Environmental precautions : Do not allow to enter into ground-water, surface water or drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so.
Dam up.
Clean-up methods - small spillage: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents),. Collect in closed and suitable containers for disposal.
Clean-up methods - large spillage: Large spills should be collected mechanically (remove by pumping) for disposal., Collect in closed and suitable containers for disposal.
Use foam on spills to minimise vapours.
Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.
Dispose of waste product or used containers according to local regulations.

6.4. Reference to other sections

Personal protection equipment: see section 8
Disposal: see section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Handling : Provide adequate ventilation.
Use personal protective equipment as required.
Personal protection equipment: see section 8
Do not breathe vapour/spray.
Avoid contact with skin, eyes and clothes.
Take any precaution to avoid mixing with incompatible materials.
See also section 10
Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time).
Do not allow contact with soil, surface or ground water.
- Advices on general occupational hygiene : Keep good industrial hygiene.
Wash hands before breaks and immediately after using the product.
When using do not eat, drink or smoke.
Keep away from food, drink and animal feedingstuffs.
Keep work clothes separately.
Take off contaminated clothing.
Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage : Keep in a dry, cool and well-ventilated place.
Do not store near or with any of the incompatible materials listed in section 10.
Bund storage facilities to prevent soil and water pollution in the event of spillage.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Packaging materials : Keep/Store only in original container.

7.3. Specific end use(s)

No data available.


SECTION 8: Exposure controls/personal protection

8.1. Control parameters

- Exposure limit values : No data available

8.2. Exposure controls

- Personal protection equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Half-face mask (EN 140)
Full face mask (EN 136)
Filter type: A / P
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
- Hand protection : Wear chemically resistant gloves (tested to EN374) ,The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.


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Eye protection	:	Use suitable eye protection. (EN166)
Body protection	:	Wear suitable protective clothing.
Thermal hazard protection	:	Not required under normal use. Use dedicated equipment.
Engineering control measures	:	Provide adequate ventilation. Organisational measures to prevent/limit releases, dispersion and exposure Safe handling: see section 7 . Take precautionary measures against static discharges. Ensure that the equipment is adequately grounded.
Environmental exposure controls	:	Do not allow contact with soil, surface or ground water. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	yellow
Odour	:	Ester
Odour threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	194,8 - 562,9 °C
Flash point	:	164,5 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable, liquid
Upper/lower flammability or explosive limits	:	No data available
Vapour pressure	:	4,2 mbar (25 °C) 420 Pa (25 °C) 3,6 mbar (20 °C)
Vapour density	:	No data available
Relative density	:	876,2 kg/m ³ (15 °C)
Water solubility	:	< 0,023 mg/l (20 °C)
Solubility in different media	:	study scientifically unjustified
Partition coefficient n-octanol/water	:	6,2 (25 °C)
Auto-ignition temperature	:	261 °C +/- 5 °C
Decomposition temperature	:	No data available
Viscosity	:	No data available
Kinematic viscosity	:	3,997 mm ² /s (40 °C)
Dynamic viscosity	:	3,347 mPa.s (40 °C)
Explosive properties	:	Not applicable The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	:	Not applicable The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

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9.2. Other information

Surface tension : study scientifically unjustified

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity : Combustible
Reference to other sections: 10.4 & 10.5

10.2. Chemical stability

Stability : The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions : None under normal processing.

10.4. Conditions to avoid

Conditions to avoid : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Safe handling: see section 7

10.5. Incompatible materials

Incompatible materials : Oxidising substances, Strong bases, Safe handling: see section 7

10.6. Hazardous decomposition products

Hazardous decomposition products : Reference to other sections: 5.2

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

Fatty acids, C10-18 and C12-22-unsatd., C14-18 and C16-18-unsatd. alkyl esters (85049-31-6)	
LD50/oral/rat	> 5 g/kg

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Serious eye damage/eye irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)


Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)
Effects on fertility :
NOAEL 1000 mg/kg
Developmental toxicity :
NOAEL 1000 mg/kg

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met.)

Fatty acids, C10-18 and C12-22-unsatd., C14-18 and C16-18-unsatd. alkyl esters (85049-31-6)	
Additional information	NOAEL, subchronic, oral, Rat: 1000 mg/kg bw/day

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Fatty acids, C10-18 and C12-22-unsatd., C14-18 and C16-18-unsatd. alkyl esters (85049-31-6)	
LOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight/day

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

Other information

Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Fatty acids, C10-18 and C12-22-unsatd., C14-18 and C16-18-unsatd. alkyl esters (85049-31-6)	
EC50 Daphnia 1	< 0,13 mg/l (48 h)
ErC50 (algae)	< 73 mg/l

12.2. Persistence and degradability

Persistence and degradability : Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation : Does not bioaccumulate.
 Partition coefficient n-octanol/water : 6,2 (25 °C)
 Bioconcentration factor (BCF) : 3,307

12.4. Mobility in soil

Mobility : Volatility : 784 Pa m³/ mol (25 °C)
 Surface tension : study scientifically unjustified
 Absorption/Adsorption/Desorption : Log Koc = 2.7 (22 °C)

12.5. Results of PBT and vPvB assessment

PBT/vPvB data : This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

Other information : No data available


SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product waste: : Do not allow contact with soil, surface or ground water.
 Dispose of empty containers and wastes safely.
 Safe handling: see section 7
 Refer to manufacturer/supplier for information on recovery/recycling.
 Recycling is preferred to disposal or incineration
 If recycling is not possible, eliminate in accordance with local valid waste disposal regulations

Contaminated packaging : Handle contaminated packages in the same way as the substance itself.
 Dispose according to legislation.
 Do not pierce or burn, even after use.
 Never use pressure to empty container.

List of proposed waste codes/waste designations in accordance with EWC : This material and its container must be disposed of as hazardous waste.
 Waste codes should be assigned by the user based on the application for which the product was used.

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SECTION 14: Transport information

14.1. UN number

UN number : NA

14.2. UN proper shipping name

Proper Shipping Name : NA

14.3. Transport hazard class(es)

14.3.1. Overland transport

ADR/RID : Not classified for this transport way.
Class(es) : Not applicable

14.3.2. Inland waterway transport (ADN)

ADN : Not classified for this transport way.

14.3.3. Transport by sea

IMDG : Not classified for this transport way.
Class or Division : Not applicable

14.3.4. Air transport

ICAO/IATA : Not classified for this transport way.
Class or Division : Not applicable

14.4. Packing group

Packing group : NA

14.5. Environmental hazards

Other information : Not applicable.

14.6. Special precautions for user

Special precautions for user : Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Code: IBC : Not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Restrictions on use : Not applicable

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC.


Authorisations : none
: Not applicable

15.1.2. National regulations

DE : WGK : 1

15.2. Chemical safety assessment

Chemical Safety Assessment : For this substance a chemical safety assessment has been carried out.

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SECTION 16: Other information

Key literature references and sources :
for data

Abbreviations and acronyms :

- DNEL = Derived No Effect Level
- DMEL = Derived minimal effect level
- PNEC = Predicted No Effect Concentration
- OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
- TWA = time weighted average
- LC50 = Median lethal concentration
- LD50 = Median lethal dose
- LL50 = Median lethal level
- EC50 = Median Effective Concentration
- EL50 = Median effective level
- ErC50 = EC50 in terms of reduction of growth rate
- ErL50 = EL50 in terms of reduction of growth rate
- NOEL = No-observed-effect level
- NOEC = No observed effect concentration
- NOELR = No observed effect loading rate
- NOAEC = No observed adverse effect concentration
- NOAEL = No observed adverse effect level
- EWC = European Waste Catalogue
- NA = Not applicable
- N.O.S. = Not Otherwise Specified
- VOC = Volatile organic compounds
- Quantitative structure-activity relationship (QSAR)
- ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
- ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
- CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods Code
- LEL = Lower Explosive Limit/Lower Explosion Limit
- UEL = Upper Explosion Limit/Upper Explosive Limit
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
- WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)
- ABM = Algemene beoordelingsmethodiek
- STOT = Specific Target Organ Toxicity
- BTT = Breakthrough time (maximum wearing time)

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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