Safety Data Sheet

37 Mix fatty acid methyl esters in 2,2,4-trimethylpentane

Version：V2.0.0.1
Report No.：BWQ9182-2016-MSDS-EP
Creation Date：2026/01/06
Revision Date：-

***Prepared in accordance with EU REACH Regulation (REACH 1907/2006 with amendment 2020/878)**

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

1.1 Product identifier

Product Name	37 Mix fatty acid methyl esters in 2,2,4-trimethylpentane
Cat No.	BWQ9182-2016
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable
REACH Registration Number	-
UFI	No information available

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

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

1.3 Details of the supplier of the Safety Data Sheet

Name of the company	Weiyel Inc
Address of the company	Hedian Light Industrial Park, Chengguan Town, Shangcheng County, Xinyang City, Henan Province, China
Post code	465350
Telephone number	010-58103678
Fax number	010-84840368
E-mail address	info@weiyel.com

1.4 Emergency telephone number

Emergency telephone number	010-58103678
Opening hours	24h

2 Hazards identification

2.1 CLP classification according to Regulation (EC) No. 1272/2008 with amendment 2023/707

Flammable liquids	Category 2
Aspiration hazard	Category 1
Skin Corrosion/Irritation	Category 2
Specific target organ toxicity - single exposure; narcotic effects	Category 3

Hazardous to the aquatic environment - short-term (acute) hazard	Category 1
Hazardous to the aquatic environment - long-term (chronic) hazard	Category 1

2.2 Label elements

Hazard pictograms	
Signal word	**Danger**

Hazard statements

H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention

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/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing gas/mist/vapour/spray.
P264	Wash hands and other parts of the body (if related) thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

- Response

P312	Call a POISON CENTRE/ doctor/… if you feel unwell.
P321	Specific treatment (see related instructions on the label).
P331	Do NOT induce vomiting.
P391	Collect spillage.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

P370+P378	Small fire: dry chemical, CO_2 or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].

◆ Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.

◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.

2.3 Other hazards

◆ Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
2,2,4-Trimethylpentane	Not PBT/vPvB
Methyl butyrate	Insufficient information, temporarily unable to evaluate
Methyl hexanoate	Not PBT/vPvB
Methyl octanoate	Not PBT/vPvB
Methyl decanoate	Not PBT/vPvB
Methyl undecanoate	Insufficient information, temporarily unable to evaluate
Methyl laurate	Not PBT/vPvB
Methyl tridecanoate	Insufficient information, temporarily unable to evaluate
Methyl myristate	Insufficient information, temporarily unable to evaluate
Methyl myristoleate	Insufficient information, temporarily unable to evaluate
Methyl pentadecanoate	Insufficient information, temporarily unable to evaluate
Methyl cis-10-pentadecenoate	Insufficient information, temporarily unable to evaluate
Methyl palmitate	Not PBT/vPvB
Methyl (Z)-hexadec-9-enoate	Insufficient information, temporarily unable to evaluate
Methyl heptadecanoate	Insufficient information, temporarily unable to evaluate
(Z)-Methyl heptadec-10-enoate	Insufficient information, temporarily unable to evaluate
Methyl stearate	Insufficient information, temporarily unable to evaluate
Methyl elaidate	Insufficient information, temporarily unable to evaluate
Methyl oleate	Insufficient information, temporarily unable to evaluate
Methyl (9E,12E)-octadeca-9,12-di enoate	Insufficient information, temporarily unable to evaluate
Methyl linoleate	Insufficient information, temporarily unable to evaluate

Methyl icosanoate	Insufficient information, temporarily unable to evaluate
GAMMA-LINOLENIC ACID METHYL ESTER	Insufficient information, temporarily unable to evaluate
Methyl cis-icos-11-enoate	Insufficient information, temporarily unable to evaluate
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	Insufficient information, temporarily unable to evaluate
Methyl henicosaneate	Insufficient information, temporarily unable to evaluate
Methyl 11-cis,14-cis-eicosadienoate	Insufficient information, temporarily unable to evaluate
Methyl docosanoate	Insufficient information, temporarily unable to evaluate
CIS-8,11,14-elcosatrienoic acld methyl ester	Insufficient information, temporarily unable to evaluate
Methyl (Z)-docos-13-enoate	Insufficient information, temporarily unable to evaluate
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	Insufficient information, temporarily unable to evaluate
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	Insufficient information, temporarily unable to evaluate
Methyl tricosanoate	Insufficient information, temporarily unable to evaluate
cis-13,16-Docosadienoic acid methyl ester	Insufficient information, temporarily unable to evaluate
Methyl tetracosanoate	Insufficient information, temporarily unable to evaluate
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	Insufficient information, temporarily unable to evaluate
Methyl (Z)-tetracos-15-enoate	Insufficient information, temporarily unable to evaluate
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	Insufficient information, temporarily unable to evaluate

◆ Results of endocrine disrupting properties assessment

Component	Results of endocrine disrupting properties assessment [according to (EU) No 2017/2100 or (EU) No 2018/605]
2,2,4-Trimethylpentane	Insufficient information, temporarily unable to evaluate
Methyl butyrate	Insufficient information, temporarily unable to evaluate
Methyl hexanoate	Insufficient information, temporarily unable to evaluate
Methyl octanoate	Insufficient information, temporarily unable to evaluate
Methyl decanoate	Insufficient information, temporarily unable to evaluate
Methyl undecanoate	Insufficient information, temporarily unable to evaluate
Methyl laurate	Insufficient information, temporarily unable to evaluate
Methyl tridecanoate	Insufficient information, temporarily unable to evaluate

Methyl myristate	Insufficient information, temporarily unable to evaluate
Methyl myristoleate	Insufficient information, temporarily unable to evaluate
Methyl pentadecanoate	Insufficient information, temporarily unable to evaluate
Methyl cis-10-pentadecenoate	Insufficient information, temporarily unable to evaluate
Methyl palmitate	Insufficient information, temporarily unable to evaluate
Methyl (Z)-hexadec-9-enoate	Insufficient information, temporarily unable to evaluate
Methyl heptadecanoate	Insufficient information, temporarily unable to evaluate
(Z)-Methyl heptadec-10-enoate	Insufficient information, temporarily unable to evaluate
Methyl stearate	Insufficient information, temporarily unable to evaluate
Methyl elaidate	Insufficient information, temporarily unable to evaluate
Methyl oleate	Insufficient information, temporarily unable to evaluate
Methyl (9E,12E)-octadeca-9,12-dienoate	Insufficient information, temporarily unable to evaluate
Methyl linoleate	Insufficient information, temporarily unable to evaluate
Methyl icosanoate	Insufficient information, temporarily unable to evaluate
GAMMA-LINOLENIC ACID METHYL ESTER	Insufficient information, temporarily unable to evaluate
Methyl cis-icos-11-enoate	Insufficient information, temporarily unable to evaluate
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	Insufficient information, temporarily unable to evaluate
Methyl henicosaneate	Insufficient information, temporarily unable to evaluate
Methyl 11-cis,14-cis-eicosadienoate	Insufficient information, temporarily unable to evaluate
Methyl docosanoate	Insufficient information, temporarily unable to evaluate
CIS-8,11,14-elcosatrienoic acid methyl ester	Insufficient information, temporarily unable to evaluate
Methyl (Z)-docos-13-enoate	Insufficient information, temporarily unable to evaluate
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	Insufficient information, temporarily unable to evaluate
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	Insufficient information, temporarily unable to evaluate
Methyl tricosanoate	Insufficient information, temporarily unable to evaluate
cis-13,16-Docosadienoic acid methyl ester	Insufficient information, temporarily unable to evaluate
Methyl tetracosanoate	Insufficient information, temporarily unable to evaluate

5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	Insufficient information, temporarily unable to evaluate
Methyl (Z)-tetracos-15-enoate	Insufficient information, temporarily unable to evaluate
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	Insufficient information, temporarily unable to evaluate

◆ Other

	Not applicable.

3 Composition/information on ingredients

3.1 Substance

	Not applicable

3.2 Mixture

Component	Weight % content(or range)	Classification according to Regulation (EC) No. 1272/2008 with amendment 2023/707 [CLP]	Specific Conc. Limits, M-factors
2,2,4-Trimethylpentane CAS : 540-84-1 EC : 208-759-1 Index No. : 601-009-00-8	99.63	Flammable liquids, Category 2, H225; Aspiration hazard, Category 1, H304; Skin Corrosion/Irritation, Category 2, H315; Specific target organ toxicity - single exposure; narcotic effects, Category 3, H336; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
Methyl butyrate CAS : 623-42-7 EC : 210-792-1 Index No. : -	0.010	Flammable liquids, Category 2, H225	-
Methyl hexanoate CAS : 106-70-7 EC : 203-425-1 Index No. : -	0.010	Flammable liquids, Category 3, H226	-
Methyl octanoate CAS : 111-11-5 EC : 203-835-0 Index No. : -	0.010	Sensitization - skin, Category 1, H317	-
Methyl decanoate CAS : 110-42-9 EC : 203-766-6 Index No. : -	0.010	Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
Methyl undecanoate CAS : 1731-86-8 EC : 217-053-2 Index No. : -	0.010	Not Classified	-
Methyl laurate CAS : 111-82-0 EC : 203-911-3 Index No. : -	0.010	Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
Methyl tridecanoate CAS : 1731-88-0 EC : 217-054-8	0.010	Serious eye damage/irritation, Category 1, H318; Hazardous to the aquatic environment - long-term (chronic) hazard,	-

Index No. : -		Category 4, H413	
Methyl myristate CAS : 124-10-7 EC : 204-680-1 Index No. : -	0.010	Not Classified	-
Methyl myristoleate CAS : 56219-06-8 EC : - Index No. : -	0.010	Not Classified	-
Methyl pentadecanoate CAS : 7132-64-1 EC : 230-430-6 Index No. : -	0.010	Serious eye damage/irritation, Category 1, H318	-
Methyl cis-10-pentadecenoate CAS : 90176-52-6 EC : 627-216-3 Index No. : -	0.010	Hazardous to the aquatic environment - long-term (chronic) hazard, Category 4, H413	-
Methyl palmitate CAS : 112-39-0 EC : 203-966-3 Index No. : -	0.010	Skin Corrosion/Irritation, Category 2, H315	-
Methyl (Z)-hexadec-9-enoate CAS : 1120-25-8 EC : 214-303-2 Index No. : -	0.010	Not Classified	-
Methyl heptadecanoate CAS : 1731-92-6 EC : 217-055-3 Index No. : -	0.010	Not Classified	-
(Z)-Methyl heptadec-10-enoate CAS : 75190-82-8 EC : - Index No. : -	0.010	No information available	-
Methyl stearate CAS : 112-61-8 EC : 203-990-4 Index No. : -	0.010	Not Classified	-
Methyl elaidate CAS : 1937-62-8 EC : 217-712-4 Index No. : -	0.010	Not Classified	-
Methyl oleate CAS : 112-62-9 EC : 203-992-5 Index No. : -	0.010	Not Classified	-
Methyl (9E,12E)-octadeca-9,12-dienoate CAS : 2566-97-4 EC : 219-901-7 Index No. : -	0.010	Not Classified	-
Methyl linoleate CAS : 112-63-0 EC : 203-993-0 Index No. : -	0.010	Not Classified	-
Methyl icosanoate CAS : 1120-28-1 EC : 214-304-8	0.010	Not Classified	-

Index No. : -			
GAMMA-LINOLENIC ACID METHYL ESTER CAS : 16326-32-2 EC : - Index No. : -	0.010	Not Classified	-
Methyl cis-icos-11-enoate CAS : 2390-09-2 EC : 219-226-8 Index No. : -	0.010	Not Classified	-
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate CAS : 301-00-8 EC : 206-102-3 Index No. : -	0.010	Not Classified	-
Methyl henicosaneate CAS : 6064-90-0 EC : 227-994-0 Index No. : -	0.010	Not Classified	-
Methyl 11-cis,14-cis-eicosadienoate CAS : 61012-46-2 EC : - Index No. : -	0.010	Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Dermal, Category 4, H312; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Acute Toxicity - Inhalation, Category 4, H332; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335	-
Methyl docosanoate CAS : 929-77-1 EC : 213-207-8 Index No. : -	0.010	Not Classified	-
CIS-8,11,14-elcosatrienoic acld methyl ester CAS : 21061-10-9 EC : - Index No. : -	0.010	Not Classified	-
Methyl (Z)-docos-13-enoate CAS : 1120-34-9 EC : 214-305-3 Index No. : -	0.010	Flammable liquids, Category 3, H226	-
Methyl (11E,14E,17E)-11,14,17-icosatrienoate CAS : 55682-88-7 EC : - Index No. : -	0.010	Not Classified	-
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate CAS : 2566-89-4 EC : 219-900-1 Index No. : -	0.010	Not Classified	-
Methyl tricosanoate CAS : 2433-97-8 EC : 219-420-2 Index No. : -	0.010	Serious eye damage/irritation, Category 1, H318	-

cis-13,16-Docosadienoic acid methyl ester CAS : 61012-47-3 EC : - Index No. : -	0.010	No information available	-
Methyl tetracosanoate CAS : 2442-49-1 EC : 219-475-2 Index No. : -	0.010	Not Classified	-
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)- CAS : 2734-47-6 EC : - Index No. : -	0.010	Skin Corrosion/Irritation, Category 2, H315	-
Methyl (Z)-tetracos-15-enoate CAS : 2733-88-2 EC : 220-352-0 Index No. : -	0.010	Not Classified	-
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)- CAS : 2566-90-7 EC : - Index No. : -	0.010	No information available	-

4 First-aid measures

4.1 Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Skin contact	Remove contaminated clothes. Rinse and then wash skin with water and soap.
Ingestion	Rinse mouth. Do NOT induce vomiting. Refer for medical attention.
Inhalation	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

4.2 Most important symptoms/effects, acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

4.3 Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Small fire: dry chemical, CO_2 or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.

Unsuitable extinguishing media	Use of water spray when fighting fire may be inefficient.

5.2 Specific hazards arising from the substance or mixture

1	Will form explosive mixtures with air.
2	Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.
3	Vapours may travel to source of ignition and flash back.
4	Liquid and vapour are flammable.
5	Development of hazardous combustion gases or vapor possible in the event of fire.
6	May expansion or decompose explosively when heated or involved in fire.

5.3 Advice for firefighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

1	Avoid breathing vapours and contacting with skin and eye.
2	Beware of vapours accumulating to form explosive concentrations.
3	Vapours can accumulate in low areas.
4	Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
5	Use personal protective equipment,do not breathe gas/mist/vapour/spray.
6	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
7	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

1	It is recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-static clothing.
2	In case of small amount of spillage, use clean non sparking tools to collect absorption materials.
3	In case of large amount of spillage, construct cofferdam or dig a hole to collect the spillage. Use foam cover to reduce evaporation. Water spray mist can reduce evaporation, but can not reduce the flammability of the leakage in the restricted space.
4	Collect absorbent material using a clean, non-sparking tool.
5	Cover with anti-solvent foam to reduce evaporation.
6	Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
7	Water spray reduces evaporation but does not reduce the flammability of spills in confined spaces.
8	Cut off the source of the leak as much as possible.
9	Keep leaks in a ventilated place.
10	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by

	bunding.
11	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
12	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.
13	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4 Reference to other sections

1	Personal Protective Equipment advice is contained in Section 8 of the SDS.
2	Disposal considerations advice is contained in Section 13 of the SDS.

7 Handling and storage

7.1 Precautions for safe handling

◆ Protective measures

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.

◆ Measures to prevent fire

1	Use only non-sparking tools.
2	To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
3	Use explosion proof equipment.
4	Keep away from heat/sparks/open flames/ hot surfaces.

◆ Measures to prevent aerosol and dust generation

1	Not applicable.

◆ Advice on general occupational hygiene

1	Wash hands and face after using the substances.
2	Replace the contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

7.3 Specific end use(s)

1	In addition to use mentioned in the Section 1.2, unforeseen other specific end uses.

8 Exposure controls/personal protection

8.1 Control parameters

◆Occupational exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m³	ppm	mg/m³
2,2,4-Trimethylpentane	Germany (DFG)	100	470	200	940
	Finland	300	1400	380	1800

	Switzerland	100	470	200	940

◆ Biological limit values

Biological limit values	No relevant regulations

◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 and GBZ/T 160 series standard Determination of toxic substances in workplace air.

◆ Derived No effect level (DNEL)

Component	Route of exposure	DNEL for Workers			
		Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
2,2,4-Trimethylpentane	Inhalation	No data available	No data available	No data available	2035 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl butyrate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl hexanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl octanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl decanoate	Inhalation	No data available	No data available	No data available	61.4 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl undecanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl laurate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl tridecanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl myristate	Inhalation	No data available	No data available	No data available	79.69 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl	Inhalation	No data available	No data available	No data available	No data available

myristoleate	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl pentadecanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl cis-10-pentadecenoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl palmitate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl (Z)-hexadec-9-enoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl heptadecanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
(Z)-Methyl heptadec-10-enoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl stearate	Inhalation	No data available	No data available	No data available	137.2 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl elaidate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl oleate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl (9E,12E)-octadeca-9,12-dienoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl linoleate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl icosanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available

	Dermal	No data available	No data available	No data available	No data available
GAMMA-LINOLENIC ACID METHYL ESTER	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl cis-icos-11-enoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl henicosaneate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl 11-cis,14-cis-eicosadienoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl docosanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
CIS-8,11,14-elcosatrienoic acld methyl ester	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl (Z)-docos-13-enoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl tricosanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
cis-13,16-Docosadienoic acid methyl ester	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

Methyl tetracosanoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Methyl (Z)-tetracos-15-enoate	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

◆ Predicted No Effect Concentration (PNEC)

Component	A	B	C	D	E	F	G	H
2,2,4-Trimethylpentane	No data available	No data available	No data available	No data available	No data available	No hazard identified	No data available	No potential for bioaccumulation
Methyl hexanoate	11 µg/L	1.1 µg/L	100 mg/L	78.5 µg/kg sediment dw	7.9 µg/kg sediment dw	No hazard identified	10 mg/kg soil dw	No potential for bioaccumulation
Methyl octanoate	1.8 µg/L	180 ng/L	100 mg/L	27.6 µg/kg sediment dw	2.8 µg/kg sediment dw	No hazard identified	10 mg/kg soil dw	66.6 mg/kg food
Methyl decanoate	1.1 µg/L	110 ng/L	100 mg/L	46.9 µg/kg sediment dw	4.7 µg/kg sediment dw	No hazard identified	10 mg/kg soil dw	66.6 mg/kg food
Methyl laurate	792 ng/L	79.2 ng/L	100 mg/L	10.55 µg/kg sediment dw	1.05 µg/kg sediment dw	No hazard identified	10 mg/kg soil dw	33.3 mg/kg food
Methyl palmitate	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No potential for bioaccumulation

Note 1:

A: Freshwater; B: Seawater; C: Sewage treatment plant; D: Sediment (freshwater); E: Sediment (seawater); F: Air; G: Soil; H: Secondary poisoning(Hazard for Predators).

Note 2:

The PNEC values of the remaining components not shown in the product are not available yet.

8.2 Exposure controls

8.2.1 Engineering controls

1 Ensure adequate ventilation, especially in confined areas.

2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

8.2.2 Personal protection equipment

General requirement	
Eye protection	Must wear appropriate safety goggles.
Hand protection	Must wear anti static chemical protective gloves.
Respiratory protection	Must wear appropriate personal respiratory protective equipment.
Skin and body protection	Must wear anti static chemical protective clothing and anti static shoes.

8.2.3 Environmental exposure controls

Environmental exposure controls	No information available

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Clear, colorless liquid
Colour	Clear, colorless liquid
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	-107 (2,2,4-Trimethylpentane)
Initial boiling point and boiling range(°C)	99 (2,2,4-Trimethylpentane)
Flash point(Closed cup,°C)	-12 (2,2,4-Trimethylpentane)
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[%(v/v)]	Upper limit : 6.0 (2,2,4-Trimethylpentane); Lower limit : 1.1 (2,2,4-Trimethylpentane)
Vapor pressure	5.1kPa (20°C,2,2,4-Trimethylpentane)
Vapor density(Air = 1)	3.9 (2,2,4-Trimethylpentane)
Relative density(Water=1)	0.69 (2,2,4-Trimethylpentane)
Solubility	Insoluble in water (2,2,4-Trimethylpentane)
n-octanol/water partition coefficient	4.08 (2,2,4-Trimethylpentane)
Auto-ignition temperature(°C)	417 (2,2,4-Trimethylpentane)
Decomposition temperature(°C)	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Particle characteristics	Not applicable

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Information with regard to physical hazard classes	No information available

9.2.2 Other safety characteristics

Other safety characteristics	No information available

10 Stability and reactivity

Stability and reactivity

10.1 Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
10.2 Chemical stability	Stable under proper operation and storage conditions.
10.3 Possibility of hazardous reactions	In contact with an open flame may cause a fire or explosion. In contact with metal alkoxides may cause a fire.
10.4 Conditions to avoid	Incompatible materials, heat, flame and spark.
10.5 Incompatible materials	Oxidantss and halogen. Metal alkyl oxide, metal hydride, inorganic peroxide, nitrate and halogens oxyacid salts.
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 with amendment 2023/707

37 Mix fatty acid methyl esters in 2,2,4-trimethylpentane	
Skin corrosion/irritation	Causes skin irritation(Category 2)
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	May cause drowsiness or dizziness(Category 3)
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	May be fatal if swallowed and enters airways(Category 1)
Germ cell mutagenicity	Based on available data, the classification criteria are not met

Acute toxicity

Component	LD_{50}(oral)	LD_{50}(dermal)	LC_{50}(inhalation,4h)
Methyl butyrate	> 5000mg/kg(Rat)	3560mg/kg(Rabbit)	No information available
Methyl hexanoate	> 5000mg/kg(Rat)	No information available	No information available

Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
2,2,4-Trimethylpentane	Not Listed	Not Listed
Methyl butyrate	Not Listed	Not Listed
Methyl hexanoate	Not Listed	Not Listed

Methyl octanoate	Not Listed	Not Listed
Methyl decanoate	Not Listed	Not Listed
Methyl undecanoate	Not Listed	Not Listed
Methyl laurate	Not Listed	Not Listed
Methyl tridecanoate	Not Listed	Not Listed
Methyl myristate	Not Listed	Not Listed
Methyl myristoleate	Not Listed	Not Listed
Methyl pentadecanoate	Not Listed	Not Listed
Methyl cis-10-pentadecenoate	Not Listed	Not Listed
Methyl palmitate	Not Listed	Not Listed
Methyl (Z)-hexadec-9-enoate	Not Listed	Not Listed
Methyl heptadecanoate	Not Listed	Not Listed
(Z)-Methyl heptadec-10-enoate	Not Listed	Not Listed
Methyl stearate	Not Listed	Not Listed
Methyl elaidate	Not Listed	Not Listed
Methyl oleate	Not Listed	Not Listed
Methyl (9E,12E)-octadeca-9,12-dienoate	Not Listed	Not Listed
Methyl linoleate	Not Listed	Not Listed
Methyl icosanoate	Not Listed	Not Listed
GAMMA-LINOLENIC ACID METHYL ESTER	Not Listed	Not Listed
Methyl cis-icos-11-enoate	Not Listed	Not Listed
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	Not Listed	Not Listed
Methyl henicosaneate	Not Listed	Not Listed
Methyl 11-cis,14-cis-eicosadienoate	Not Listed	Not Listed
Methyl docosanoate	Not Listed	Not Listed
CIS-8,11,14-eIcosatrienoic acId methyl ester	Not Listed	Not Listed
Methyl (Z)-docos-13-enoate	Not Listed	Not Listed
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	Not Listed	Not Listed
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	Not Listed	Not Listed

Methyl tricosanoate	Not Listed	Not Listed
cis-13,16-Docosadienoic acid methyl ester	Not Listed	Not Listed
Methyl tetracosanoate	Not Listed	Not Listed
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	Not Listed	Not Listed
Methyl (Z)-tetracos-15-enoate	Not Listed	Not Listed
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	Not Listed	Not Listed

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Component	Endocrine disrupting properties
2,2,4-Trimethylpentane	No information available
Methyl butyrate	No information available
Methyl hexanoate	No information available
Methyl octanoate	No information available
Methyl decanoate	No information available
Methyl undecanoate	No information available
Methyl laurate	No information available
Methyl tridecanoate	No information available
Methyl myristate	No information available
Methyl myristoleate	No information available
Methyl pentadecanoate	No information available
Methyl cis-10-pentadecenoate	No information available
Methyl palmitate	No information available
Methyl (Z)-hexadec-9-enoate	No information available
Methyl heptadecanoate	No information available
(Z)-Methyl heptadec-10-enoate	No information available
Methyl stearate	No information available
Methyl elaidate	No information available
Methyl oleate	No information available
Methyl (9E,12E)-octadeca-9,12-dienoate	No information available
Methyl linoleate	No information available
Methyl icosanoate	No information available

GAMMA-LINOLENIC ACID METHYL ESTER	No information available
Methyl cis-icos-11-enoate	No information available
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	No information available
Methyl henicosaneate	No information available
Methyl 11-cis,14-cis-eicosadienoate	No information available
Methyl docosanoate	No information available
CIS-8,11,14-elcosatrienoic acid methyl ester	No information available
Methyl (Z)-docos-13-enoate	No information available
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	No information available
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	No information available
Methyl tricosanoate	No information available
cis-13,16-Docosadienoic acid methyl ester	No information available
Methyl tetracosanoate	No information available
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	No information available
Methyl (Z)-tetracos-15-enoate	No information available
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	No information available

11.2.2 Other Information

Other Information	See Section 11.1

12 Ecological information

12.1 Toxicity

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Methyl stearate	No information available	EC_{50} : > 0.02mg/L (48h)(Crustaceans)	ErC_{50} : > 0.023mg/L (72h)(Algae)
Methyl laurate	LC_{50} : >0.52mg/L (96h)(Fish)	EC_{50} : 0.23mg/L (48h)(Crustaceans)	ErC_{50} : 0.32mg/L (72h)(Algae)
Methyl myristate	No information available	EC_{50} : > 0.02mg/L (48h)(Crustaceans)	ErC_{50} : > 0.023mg/L (72h)(Algae)

Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Methyl laurate	No information available	NOEC : 0.081mg/L(Crustaceans)	NOEC : 0.040mg/L(Algae)

12.2 Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
2,2,4-Trimethylpentane	High	High
Methyl hexanoate	Low	Low
Methyl octanoate	Low	Low
Methyl decanoate	Low	Low
Methyl undecanoate	Low	Low
Methyl laurate	Low	Low
Methyl tridecanoate	Low	Low
Methyl myristate	Low	Low
Methyl pentadecanoate	Low	Low
Methyl palmitate	Low	Low
Methyl heptadecanoate	Low	Low
Methyl stearate	Low	Low
Methyl oleate	Low	Low
Methyl linoleate	Low	Low
Methyl icosanoate	Low	Low
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	Low	Low

12.3 Bioaccumulative potential

Component	Bioaccumulative potential	Comments
2,2,4-Trimethylpentane	Medium	BCF=650
Methyl hexanoate	Low	Log Kow=2.3375
Methyl octanoate	Low	Log Kow=3.3197
Methyl decanoate	Medium	Log Kow=4.41
Methyl undecanoate	High	Log Kow=4.793
Methyl laurate	High	Log Kow=5.41
Methyl tridecanoate	High	Log Kow=5.7752
Methyl myristate	High	Log Kow=6.41
Methyl pentadecanoate	High	Log Kow=6.7574
Methyl palmitate	Low	Log Kow=7.38
Methyl heptadecanoate	Low	Log Kow=7.7396

Methyl stearate	Low	Log Kow=8.35
Methyl oleate	Low	Log Kow=7.45
Methyl linoleate	High	Log Kow=6.82
Methyl icosanoate	Low	Log Kow=9.3
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8, 11,14-tetraenoate	Low	Log Kow=8.3529

12.4 Mobility in soil

Component	log Koc	Remark
2,2,4-Trimethylpentane	≥2.7 - ≤3.56	20 ℃， pH=7.0
Methyl hexanoate	1.605	
Methyl octanoate	2.137	
Methyl decanoate	2.669	
Methyl undecanoate	2.935	
Methyl laurate	3.200	
Methyl tridecanoate	3.466	
Methyl myristate	3.732	
Methyl pentadecanoate	3.998	
Methyl palmitate	4.264	
Methyl heptadecanoate	4.530	
Methyl stearate	4.795	
Methyl oleate	4.795	
Methyl linoleate	4.795	
Methyl icosanoate	5.327	
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8, 11,14-tetraenoate	5.327	

12.5 Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
2,2,4-Trimethylpentane	Not PBT/vPvB
Methyl butyrate	Insufficient information, temporarily unable to evaluate
Methyl hexanoate	Not PBT/vPvB
Methyl octanoate	Not PBT/vPvB
Methyl decanoate	Not PBT/vPvB
Methyl undecanoate	Insufficient information, temporarily unable to evaluate
Methyl laurate	Not PBT/vPvB
Methyl tridecanoate	Insufficient information, temporarily unable to evaluate
Methyl myristate	Insufficient information, temporarily unable to evaluate

Methyl myristoleate	Insufficient information, temporarily unable to evaluate
Methyl pentadecanoate	Insufficient information, temporarily unable to evaluate
Methyl cis-10-pentadecenoate	Insufficient information, temporarily unable to evaluate
Methyl palmitate	Not PBT/vPvB
Methyl (Z)-hexadec-9-enoate	Insufficient information, temporarily unable to evaluate
Methyl heptadecanoate	Insufficient information, temporarily unable to evaluate
(Z)-Methyl heptadec-10-enoate	Insufficient information, temporarily unable to evaluate
Methyl stearate	Insufficient information, temporarily unable to evaluate
Methyl elaidate	Insufficient information, temporarily unable to evaluate
Methyl oleate	Insufficient information, temporarily unable to evaluate
Methyl (9E,12E)-octadeca-9,12-dienoate	Insufficient information, temporarily unable to evaluate
Methyl linoleate	Insufficient information, temporarily unable to evaluate
Methyl icosanoate	Insufficient information, temporarily unable to evaluate
GAMMA-LINOLENIC ACID METHYL ESTER	Insufficient information, temporarily unable to evaluate
Methyl cis-icos-11-enoate	Insufficient information, temporarily unable to evaluate
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	Insufficient information, temporarily unable to evaluate
Methyl henicosaneate	Insufficient information, temporarily unable to evaluate
Methyl 11-cis,14-cis-eicosadienoate	Insufficient information, temporarily unable to evaluate
Methyl docosanoate	Insufficient information, temporarily unable to evaluate
CIS-8,11,14-elcosatrienoic acid methyl ester	Insufficient information, temporarily unable to evaluate
Methyl (Z)-docos-13-enoate	Insufficient information, temporarily unable to evaluate
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	Insufficient information, temporarily unable to evaluate
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	Insufficient information, temporarily unable to evaluate
Methyl tricosanoate	Insufficient information, temporarily unable to evaluate
cis-13,16-Docosadienoic acid methyl ester	Insufficient information, temporarily unable to evaluate
Methyl tetracosanoate	Insufficient information, temporarily unable to evaluate
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	Insufficient information, temporarily unable to evaluate

Methyl (Z)-tetracos-15-enoate	Insufficient information, temporarily unable to evaluate
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	Insufficient information, temporarily unable to evaluate

12.6 Endocrine disrupting properties

Component	Endocrine disrupting properties
2,2,4-Trimethylpentane	No information available
Methyl butyrate	No information available
Methyl hexanoate	No information available
Methyl octanoate	No information available
Methyl decanoate	No information available
Methyl undecanoate	No information available
Methyl laurate	No information available
Methyl tridecanoate	No information available
Methyl myristate	No information available
Methyl myristoleate	No information available
Methyl pentadecanoate	No information available
Methyl cis-10-pentadecenoate	No information available
Methyl palmitate	No information available
Methyl (Z)-hexadec-9-enoate	No information available
Methyl heptadecanoate	No information available
(Z)-Methyl heptadec-10-enoate	No information available
Methyl stearate	No information available
Methyl elaidate	No information available
Methyl oleate	No information available
Methyl (9E,12E)-octadeca-9,12-dienoate	No information available
Methyl linoleate	No information available
Methyl icosanoate	No information available
GAMMA-LINOLENIC ACID METHYL ESTER	No information available
Methyl cis-icos-11-enoate	No information available
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	No information available
Methyl henicosaneate	No information available
Methyl 11-cis,14-cis-eicosadienoa	No information available

te	
Methyl docosanoate	No information available
CIS-8,11,14-elcosatrienoic acid methyl ester	No information available
Methyl (Z)-docos-13-enoate	No information available
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	No information available
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	No information available
Methyl tricosanoate	No information available
cis-13,16-Docosadienoic acid methyl ester	No information available
Methyl tetracosanoate	No information available
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	No information available
Methyl (Z)-tetracos-15-enoate	No information available
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	No information available

12.7 Other adverse effects

	No information available

13 Disposal considerations

13.1 Waste treatment methods

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label and Mark

Transporting Label	

IMDG-CODE

14.1 UN number	1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
14.3 Transport hazard class	3
14.4 Packing group	Ⅱ

14.5 Environmental hazards (Yes or no)	Yes

IATA-DGR

14.1 UN number	1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
14.3 Transport hazard class	3
14.4 Packing group	Ⅱ
14.5 Environmental hazards (Yes or no)	Yes

UN-ADR

14.1 UN number	1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
14.3 Transport hazard class	3
14.4 Packing group	Ⅱ
14.5 Environmental hazards (Yes or no)	Yes

Special precautions for user

	Shipment of the goods vehicle exhaust pipe must be equipped with fire retardant devices, prohibit using mechanical equipment and tools of which easy to produce sparks. Transit should be anti-exposure, anti-rain, anti-high temperature. Transportation used tank (tank) cars should be grounded chain, tank can be installed to reduce the partition hole static electricity shocks. Strictly prohibited shipping or transportation with oxidants, acids, food and food additives etc. When bulk transport, Prohibit the use of cement or wooden boats. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

Maritime transport in bulk according to IMO instruments

◆Transport in bulk according to Annex II of MARPOL and the IBC code

	Not Available

◆Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

	Not Available

◆Transport in bulk in accordance with the IGC Code

	Not Available

15 Regulatory information

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

International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
2,2,4-Trimethylpentane	√	√	√	√	√	√	√	√	√	√	√	√	√
Methyl butyrate	√	√	√	√	√	√	√	√	√	×	√	√	√

Methyl hexanoate	√	√	√	√	√	√	√	√	√	×	√	√	√
Methyl octanoate	√	√	√	√	√	√	√	√	√	×	√	√	√
Methyl decanoate	√	√	√	√	√	√	√	√	√	×	×	√	√
Methyl undecanoate	√	√	√	×	√	√	√	√	√	×	×	√	√
Methyl laurate	√	√	√	√	√	√	√	√	√	√	√	√	√
Methyl tridecanoate	√	√	√	×	√	√	√	×	√	×	×	√	√
Methyl myristate	√	√	√	√	√	√	√	√	√	√	×	√	√
Methyl myristoleate	×	×	×	×	×	×	×	×	×	×	×	√	√
Methyl pentadecanoate	√	√	√	√	√	√	√	√	√	×	×	√	√
Methyl cis-10-pentadecenoate	×	×	×	×	×	×	×	×	×	×	×	√	×
Methyl palmitate	√	√	√	√	√	√	√	√	√	√	√	√	√
Methyl (Z)-hexadec-9-enoate	√	√	×	×	×	×	√	×	√	×	×	√	√
Methyl heptadecanoate	√	√	√	×	√	√	√	√	√	×	×	√	√
(Z)-Methyl heptadec-10-enoate	×	×	×	×	×	×	×	×	×	×	×	√	√
Methyl stearate	√	√	√	√	√	√	√	√	√	√	√	√	√
Methyl elaidate	×	√	√	√	√	√	√	×	×	×	×	√	√
Methyl oleate	√	√	√	√	√	√	√	√	√	×	√	√	√
Methyl (9E,12E)-octadeca-9,12-dienoate	×	√	×	×	×	×	√	×	√	×	×	√	√
Methyl linoleate	√	√	√	√	√	√	√	√	√	√	√	√	√
Methyl icosanoate	√	√	√	×	√	×	√	√	√	×	×	√	√
GAMMA-LINOLENIC ACID METHYL ESTER	×	×	×	×	√	×	×	×	×	×	×	√	√
Methyl cis-icos-11-enoate	×	√	×	×	×	×	√	×	×	×	×	√	√
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	√	√	√	√	√	√	√	√	√	×	×	√	√
Methyl henicosaneate	×	√	×	×	√	×	×	×	√	×	×	√	√
Methyl 11-cis,14-cis-eicosadienoate	×	×	×	×	×	×	×	×	×	×	×	√	×
Methyl docosanoate	√	√	√	×	√	×	√	√	√	×	×	√	√
CIS-8,11,14-elcosatrienoic acid methyl ester	×	×	×	×	×	×	×	×	×	×	×	√	√
Methyl (Z)-docos-13-enoate	√	√	√	×	√	×	√	×	√	×	×	√	√
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	×	×	×	×	×	×	×	×	×	×	×	√	×
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	√	√	×	×	√	×	×	√	×	×	×	√	√
Methyl tricosanoate	×	√	×	×	√	×	√	×	√	×	×	√	√
cis-13,16-Docosadienoic acid methyl ester	×	×	×	×	×	×	×	×	×	×	×	√	√

Methyl tetracosanoate	×	√	×	×	√	×	√	×	√	×	×	√	√
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	×	×	×	×	√	×	×	×	×	×	×	√	√
Methyl (Z)-tetracos-15-enoate	×	√	×	×	×	×	×	×	√	×	×	√	√
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	×	×	×	×	×	×	×	√	×	×	×	√	√

【A】 China Inventory of Existing Chemical Substances(IECSC)
【B】 European Inventory of Existing Commercial Chemical Substances(EC inventory)
【C】 United States Toxic Substances Control Act Inventory(TSCA)
【D】 Canadian Domestic Substances List(DSL)
【E】 New Zealand Inventory of Chemicals(NZIoC)
【F】 Philippines Inventory of Chemicals and Chemical Substances(PICCS)
【G】 Korea Existing Chemicals Inventory(KECL)
【H】 Australian. Inventory of Industrial Chemical (AIICS)
【I】 Japan Inventory of Existing & New Chemical Substances(ENCS)
【J】 Thailand Existing Chemicals Inventory(TECI)
【K】 Mexico National Inventory of Chemical Substances (INSQ)
【L】 Russia Inventory of Existing Substances (DRAFT)
【M】 Inventory of Existing Chemical Substances in Taiwan, China (TCSI)

List of Chemical Substances under International Conventions

Component	A	B	C
2,2,4-Trimethylpentane	×	×	×
Methyl butyrate	×	×	×
Methyl hexanoate	×	×	×
Methyl octanoate	×	×	×
Methyl decanoate	×	×	×
Methyl undecanoate	×	×	×
Methyl laurate	×	×	×
Methyl tridecanoate	×	×	×
Methyl myristate	×	×	×
Methyl myristoleate	×	×	×
Methyl pentadecanoate	×	×	×
Methyl cis-10-pentadecenoate	×	×	×
Methyl palmitate	×	×	×
Methyl (Z)-hexadec-9-enoate	×	×	×
Methyl heptadecanoate	×	×	×
(Z)-Methyl heptadec-10-enoate	×	×	×
Methyl stearate	×	×	×
Methyl elaidate	×	×	×
Methyl oleate	×	×	×
Methyl (9E,12E)-octadeca-9,12-di	×	×	×

enoate			
Methyl linoleate	×	×	×
Methyl icosanoate	×	×	×
GAMMA-LINOLENIC ACID METHYL ESTER	×	×	×
Methyl cis-icos-11-enoate	×	×	×
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	×	×	×
Methyl henicosaneate	×	×	×
Methyl 11-cis,14-cis-eicosadienoate	×	×	×
Methyl docosanoate	×	×	×
CIS-8,11,14-eIcosatrienoic acId methyl ester	×	×	×
Methyl (Z)-docos-13-enoate	×	×	×
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	×	×	×
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	×	×	×
Methyl tricosanoate	×	×	×
cis-13,16-Docosadienoic acid methyl ester	×	×	×
Methyl tetracosanoate	×	×	×
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	×	×	×
Methyl (Z)-tetracos-15-enoate	×	×	×
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	×	×	×

【A】 The Montreal Protocol on Substances that Deplete the Ozone Layer
【B】 Stockholm Convention on Persistent Organic Pollutants (POPs)
【C】 Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

European chemical inventory

Component	A	B	C	D	E	F	G	H	I
2,2,4-Trimethylpentane	×	×	×	√	√	×	×	×	×
Methyl butyrate	×	×	×	√	×	×	×	×	×
Methyl hexanoate	×	×	×	√	√	×	×	×	×
Methyl octanoate	×	×	×	√	√	×	×	×	×
Methyl decanoate	×	×	×	√	√	×	×	×	×
Methyl undecanoate	×	×	×	√	×	×	×	×	×
Methyl laurate	×	×	×	√	√	×	×	×	×

Methyl tridecanoate	×	×	×	√	×	×	×	×	×
Methyl myristate	×	×	×	√	√	×	×	×	×
Methyl myristoleate	×	×	×	×	√	×	×	×	×
Methyl pentadecanoate	×	×	×	√	×	×	×	×	×
Methyl cis-10-pentadecenoate	×	×	×	×	×	×	×	×	×
Methyl palmitate	×	×	×	√	√	×	×	×	×
Methyl (Z)-hexadec-9-enoate	×	×	×	√	×	×	×	×	×
Methyl heptadecanoate	×	×	×	√	×	×	×	×	×
(Z)-Methyl heptadec-10-enoate	×	×	×	×	×	×	×	×	×
Methyl stearate	×	×	×	√	√	×	×	×	×
Methyl elaidate	×	×	×	√	×	×	×	×	×
Methyl oleate	×	×	×	√	×	×	×	×	×
Methyl (9E,12E)-octadeca-9,12-dienoate	×	×	×	√	×	×	×	×	×
Methyl linoleate	×	×	×	√	×	×	×	×	×
Methyl icosanoate	×	×	×	√	×	×	×	×	×
GAMMA-LINOLENIC ACID METHYL ESTER	×	×	×	×	×	×	×	×	×
Methyl cis-icos-11-enoate	×	×	×	√	×	×	×	×	×
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	×	×	×	√	×	×	×	×	×
Methyl henicosaneate	×	×	×	√	×	×	×	×	×
Methyl 11-cis,14-cis-eicosadienoate	×	×	×	×	×	×	×	×	×
Methyl docosanoate	×	×	×	√	×	×	×	×	×
CIS-8,11,14-elcosatrienoic acld methyl ester	×	×	×	×	×	×	×	×	×
Methyl (Z)-docos-13-enoate	×	×	×	√	×	×	×	×	×
Methyl (11E,14E,17E)-11,14,17-icosatrienoate	×	×	×	×	×	×	×	×	×
Methyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate	×	×	×	√	×	×	×	×	×

Methyl tricosanoate	×	×	×	√	×	×	×	×	×
cis-13,16-Docosadienoic acid methyl ester	×	×	×	×	×	×	×	×	×
Methyl tetracosanoate	×	×	×	√	×	×	×	×	×
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	×	×	×	×	×	×	×	×	×
Methyl (Z)-tetracos-15-enoate	×	×	×	√	×	×	×	×	×
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-	×	×	×	×	×	×	×	×	×

[A] Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
[B] Substances requiring authorisation under EU REACH regulation
[C] Substances restricted under EU REACH
[D] Pre-registered substances under EU REACH
[E] Registered substances under EU REACH
[F] Substance Evaluation – CoRAP under EU REACH
[G] List of priority substances under EU water policy （Directive 2455/2001/EC）
[H] Substances subject to POPs Regulation
[I] Substances proposed as POPs

Note:
"√" Indicates that the substance included in the regulations.
"×" No data or not included in the regulations.

German water hazard class(WGK)

Component	WGK	Remark
2,2,4-Trimethylpentane	WGK 2	
Methyl butyrate	WGK 2	
Methyl hexanoate	WGK 1	
Methyl octanoate	WGK 1	
Methyl decanoate	WGK 1	
Methyl laurate	WGK 2	The assessment refers to the unadditivised substance. If additives are added, higher WGK are possible in accordance with the rules specified in Annex 1 No. 5 of the AwSV.
Methyl myristate	WGK 1	
Methyl palmitate	WGK 1	
Methyl (Z)-hexadec-9-enoate	WGK 1	
Methyl stearate	WGK 1	
Methyl elaidate	WGK 1	
Methyl oleate	WGK 1	
Methyl	WGK 1	

(9E,12E)-octadeca-9,12-dienoate		
Methyl linoleate	WGK 1	
Methyl icosanoate	WGK 1	
Methyl cis-icos-11-enoate	WGK 1	
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	WGK 1	
Methyl docosanoate	WGK 1	
Methyl (Z)-docos-13-enoate	WGK 1	
Methyl tetracosanoate	WGK 1	
Methyl (Z)-tetracos-15-enoate	WGK 1	

【WGK 1】 slightly hazardous to water
【WGK 2】 obviously hazardous to water
【WGK 3】 highly hazardous to water
【nwg】 non-hazardous to water
【awg】 hazardous to water in general

German technical instructions on air quality control(TA LUFT)

Component	TA LUFT	Remark
2,2,4-Trimethylpentane	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl butyrate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl hexanoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl octanoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units	

	with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl decanoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl undecanoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl laurate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl tridecanoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl myristate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl pentadecanoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the	

	emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl palmitate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl (Z)-hexadec-9-enoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl stearate	Chapter 5.2.5 Organic Substances, dust,including fine dust.To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values:Mass flow:0,20 kg/hr or Mass conc.:20 mg/m³ The mass per unit volume of 0,15 g/m³ in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h.For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m³.	
Methyl oleate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl linoleate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl icosanoate	Chapter 5.2.5 Organic Substances, dust,including fine dust.To be treated as overall dust. The emissions of dust in the exhaust gas are not	

	allowed to exceed the following values:Mass flow:0,20 kg/hr or Mass conc.:20 mg/m³ The mass per unit volume of 0,15 g/m³ in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h.For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m³.	
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl henicosaneate	Chapter 5.2.5 Organic Substances, dust,including fine dust.To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values:Mass flow:0,20 kg/hr or Mass conc.:20 mg/m³ The mass per unit volume of 0,15 g/m³ in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h.For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m³.	
Methyl 11-cis,14-cis-eicosadienoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
CIS-8,11,14-elcosatrienoic acld methyl ester	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
Methyl (Z)-docos-13-enoate	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in	

	exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	Chapter 5.2.5 Organic Substances.The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas:Mass flow:0,50 kg/hr or Mass conc.:50 mg/m³ At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.	

German technical rules for hazardous substances(TRGS)

Component	TRGS	Remark
2,2,4-Trimethylpentane	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Methyl butyrate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Methyl hexanoate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
Methyl octanoate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl decanoate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl undecanoate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl laurate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl tridecanoate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl myristate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl pentadecanoate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl palmitate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl (Z)-hexadec-9-enoate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl stearate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl oleate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl linoleate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	

Methyl icosanoate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl henicosaneate	TRGS 500|TRGS 509|TRGS 510|TRGS 800	
Methyl 11-cis,14-cis-eicosadienoate	TRGS 500|TRGS 509|TRGS 510	
CIS-8,11,14-elcosatrienoic acld methyl ester	TRGS 500|TRGS 509|TRGS 510	
Methyl (Z)-docos-13-enoate	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (5Z,8Z,11Z,14Z,17Z)-	TRGS 500|TRGS 509|TRGS 510|TRGS 800	

15.2 Chemical safety assessment

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

16 Other information

Information on revision

Creation Date	2026/01/06
Revision Date	-
Reason for revision	-

Reference

[1] IPCS: The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home.
[2] IARC, website: http://www.iarc.fr/.
[3] OECD: The Global Portal to Information on Chemical Substances, website: https://www.echemportal.org/echemportal/.
[4] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple.
[5] NLM: ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp.
[6] EPA: Integrated Risk Information System, website: http://cfpub.epa.gov/iris/.
[7] U.S. Department of Transportation: ERG, website: http://www.phmsa.dot.gov/hazmat/library/erg.
[8] Germany GESTIS-database on hazard substance, website: http://gestis-en.itrust.de/.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC_{50}	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD_{50}	Lethal Dose 50%	NTP	National Toxicology Program
EC_{50}	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC_X	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P_{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

Disclaimer

This Safety Data Sheet (SDS) was prepared according to REACH Regulation The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.