according to Regulation (EC) No. 1907/2006

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ETHYL SAFRANATE

Version 2.0 Revision Date 24 SEP 2020 Print Date 17 MAY 2021

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

1.1 Product identifier

Sales No. : 8802603

ETHYL SAFRANATE

Substance name : ethyl 2,6,6-trimethylcyclohexa-1,3(2,4)-dienecarboxylate and

ethyl 6,6-dimethyl-2-methylenecyclohex-3-enecarboxylate

Identifier

CAS-No. : 35044-59-8

35044-57-6 35044-58-7 915-634-1

EC-No. : 915-634-1 Formula : C12-H18-O2

REACH Registration Number : 01-2120742165-59

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

Intended Use Fragrances : Perfumery ingredient

1.3 Details of the supplier of the safety data sheet

Company

Givaudan Suisse SA Chemin de la Parfumerie 5 CH-1214 VERNIER

Telephone : +41227809111 Telefax : +41227809150

E-mail address : global.msds fragrances raps@givaudan.com

Responsible/issuing person

1.4 Emergency telephone number

+33172110003

Please refer to section 16 for a full list of emergency phone numbers.

France - Numéro ORFILA (INRS) : 33 (0)1 45 42 59 59

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2 H315: Causes skin irritation.

Long-term (chronic) aquatic hazard, H412: Harmful to aquatic life with long lasting

Category 3 effects.

Administrative information:

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Signal word : Warning

Hazard statements : H315 Causes skin irritation.

H412 Harmful to aquatic life with long lasting

effects.

Precautionary statements : **Prevention**:

P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves.

Response:

P332 + P313 If skin irritation occurs: Get medical advice/

attention

P362 + P364 Take off contaminated clothing and wash it

before reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

Hazards not Otherwise

Classified.

: None

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

Chemical name	CAS-No. EC-No. REACH Registration Number	Concentration [Percent by weight]
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Administrative information:

Report Information: SDS_FR/EN/GHS_SDS_EU_CNTRY/33 Sales & Distribution Information: VE01/FR/CH11/01

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ethyl 2,6,6- trimethylcyclohexa-1,3(2,4)- dienecarboxylate and ethyl 6,6-dimethyl-2- methylenecyclohex-3- enecarboxylate	35044-59-8 915-634-1 01-2120742165-59	>= 90 - <= 100
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SECTION 4. First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical

advice

If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician.

If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Remove contact lenses.

Immediately flush eyes for at least 15 minutes. Get medical

attention.

If swallowed : Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : no data available Risks : no data available

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : no data available

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam

Carbon dioxide (CO2)

Dry chemical Water spray

Administrative information:

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Unsuitable extinguishing

media

: no data available

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Do not allow run-off from fire fighting to enter drains or water

courses.

5.3 Advice for firefighters

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

: no data available

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Not applicable

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Dispose of rinse water in accordance with local and national

regulations.

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Advice on protection against : Normal measures for preventive fire protection.

fire and explosion

Temperature class : no data available Fire-fighting class : no data available Dust explosion class : no data available

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage.

Electrical installations / working materials must comply with

the technological safety standards.

Further information on : Ambient / 10-30°C (50-85°F)

storage conditions Dry, well ventilated, preferably full, hermetically sealed

Advice on common storage : Protect against light. German storage class : no data available

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : no data available

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Respiratory protection : Use only in well-ventilated areas.

Hand protection : Use gloves when handling substance in open systems.

Inspect gloves prior to use. Train operators for proper use. If only incidental exposure is expected: (work without direct contact to substance) use gloves tested according EN 16523-1 breakthrough times at least 10 minutes, tested for chemicals indicated in chapter 3 of this SDS. Change gloves frequently. If direct skin contact is expected: use gloves tested according to EN 16523-1, tested for chemicals indicated in chapter 3 of

this SDS. Permeation time must exceed contact time.

Eye protection : Use tightly fitting safety glasses according to EN 166.

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Skin and body protection : Wear working clothes covering arms and legs.

Hygiene measures : Do not eat, drink or smoke during work.

Wash and dry hands after finished working.

Protective measures : Exposure assessment: Exposure is dependent on the product

being handled, the potential for chemical release, and any resulting airborne concentrations or dermal contact. Since product handling and release scenarios vary, and no two workplaces are exactly alike, it is recommended that the potential for exposure be assessed prior to the product's use or introduction. Exposure assessments should be performed by an occupational hygienist, industrial hygienist, or other qualified occupational or environmental health professional. An exposure assessment should be conducted to determine the efficacy of any ventilation and the need for additional

respiratory protection.

PPE is always the last resort to avoid exposure. In any case technical and organisational measures have to be explored and used prior to the selection of PPE. The PPE selection is for operators trained to work with chemicals according to good industrial hygiene and safety practice. Operators have to be

trained and used to PPE handling.

Environmental exposure controls

General advice : Prevent product from entering drains.

If the product contaminates rivers and lakes or drains inform

respective authorities.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid Form : liquid

Colour : colorless to Pale yellow

Taste : not determined

Odour : Spicy, Aniseed-like, mint-like, fruity

Odour Threshold : 0,5767 ng/l

Flash point : 88 °C Method: closed cup

Lower explosion limit : not determined Upper explosion limit : not determined Flammability : no data available

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Information taken from reference works and the literature.

Auto-ignition temperature : 300 ℃ Method: DIN 51794

Decomposition temperature : no data available Molecular weight : 194,00 g/mol

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рΗ : no data available

Melting point : < -50 ℃ Boiling point : not determined

Vapour pressure : 0,0417 hPa at 20 ℃

Method: OECD Test Guideline 104

: 964,26 kg/m3 at 20 ℃ Density Bulk density : Not applicable Water solubility : 143 mg/l at 20 °C Solubility/qualitative : Very slightly soluble Partition coefficient: n- : log Pow: 3,4

octanol/water Method: OECD Test Guideline 117

Relative vapour density
Surface tension

Notice: OECD To the control of the contr

: 51,9 mN/m Method: OECD Test Guideline 115

Evaporation rate : no data available Explosive properties : Not explosive

9.2 Other information

Not applicable

SECTION 10. Stability and reactivity

10.1 Reactivity

none

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : no data available

10.5 Incompatible materials

Materials to avoid : no data available

10.6 Hazardous decomposition products

Hazardous decomposition : no data available

products

Thermal decomposition : no data available

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SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : LD50 Rat

Dose: > 5 000 mg/kg

Acute inhalation toxicity : This information is not available.

Acute dermal toxicity : LD50 Rabbit

Dose: > 5 000 mg/kg

of administration)

Acute toxicity (other routes : No data is available on the product itself.

Skin corrosion/irritation

Skin irritation : Species: reconstructed human epidermis (RhE)

Skin irritation

Method: OECD Test Guideline 439

Species: human skin

Skin irritation

Method: OECD Test Guideline 431

Serious eye damage/eye irritation

Eye irritation Species: Bovine cornea

No eye irritation

Method: OECD Test Guideline 437

Respiratory or skin sensitisation

Sensitisation : KeratinoSens assay

Result: Does not cause skin sensitisation. Method: OECD Test Guideline 442D

Result: Does not cause skin sensitisation. Method: OECD Test Guideline 442C

Skin sensitization Human Result: Not sensitizing at 10 % in Petrolatum

Germ cell mutagenicity

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: Ames test Genotoxicity in vitro

negative

Method: Mutagenicity (Salmonella typhimurium - reverse

mutation assay)

Carcinogenicity

Carcinogenicity : No data is available on the product itself.

Reproductive toxicity

Reproductive toxicity : No data is available on the product itself.

Target Organ Systemic Toxicant - Single exposure

Target Organ Systemic : No data is available on the product itself.

Toxicant - Single exposure

Target Organ Systemic Toxicant - Repeated exposure

Target Organ Systemic : No data is available on the product itself.

Toxicant - Repeated

exposure

Target Organ Systemic Toxicant - Repeated exposure

Aspiration hazard

Aspiration toxicity : No data is available on the product itself.

Phototoxicity

Phototoxicity : No data is available on the product itself.

Further information : no data available

SECTION 12. Ecological information

12.1 Toxicity

Toxicity to fish : no data available

Toxicity to daphnia and other : EC50: 20,5 mg/l

aquatic invertebrates Exposure time: 48 h

Species: Daphnia magna (Water flea) static test Method: OECD Test Guideline 202

Toxicity to algae : ErC50: 3,89 mg/l

Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (algae)

Administrative information:

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static test Method: OECD Test Guideline 201

: ErC10: 1,61 mg/l Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (algae) static test Method: OECD Test Guideline 201

: NOEC: 0,509 mg/l Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (algae) static test Method: OECD Test Guideline 201

Toxicity to bacteria : no data available Toxicity to fish (Chronic : no data available

toxicity)

Toxicity to daphnia and other : no data available

aquatic invertebrates (Chronic toxicity)

Ecotoxicology Assessment

Short-term (acute) aquatic

hazard

Long-term (chronic) aquatic

hazard

Toxicity Data on Soil Other organisms relevant to

the environment

: no data available

: Harmful to aquatic life with long lasting effects.

: no data available : no data available

12.2 Persistence and degradability

Biodegradability : Result: Not readily biodegradable.

Method: OECD Test Guideline 301 F

12.3 Bioaccumulative potential

Bioaccumulation : no data available

12.4 Mobility in soil

Mobility : no data available Distribution among : no data available

environmental compartments

Additional advice : no data available

Environmental fate and

pathways

Physico-chemical : no data available

removability

12.5 Results of PBT and vPvB assessment

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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.

12.6 Other adverse effects

Biochemical Oxygen :

Demand (BOD)

Dissolved organic carbon

(DOC)

Chemical Oxygen Demand

(COD)

Adsorbed organic bound

halogens (AOX)

Additional ecological

information

: no data available

: no data available

: no data available

: no data available

: Harmful to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Dispose of in accordance with local regulations.

SECTION 14. Transport information

14.1 UN number

N/A

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

N/A

14.4 Packing group

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N/A

14.5 Environmental hazards

N/A

14.6 Special precautions for user

IMDG

IMDG Code Segregation : None

Group

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15. Regulatory information

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

Major Accident Hazard

Legislation

: Not applicable

Water contaminating class : WGK 2 obviously hazardous to water

(Germany) Code Number: 4 146

Classification according to AwSV, Annex 1 (4)

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16. Other information

Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.

H412 Harmful to aquatic life with long lasting effects.

Full list of Emergency response numbers worldwide.

	Country	Phone nr		Country	Phone nr
Europe	All Europe	+44 1235 239670	APAC	All East/South East Asia	+65 3158 1074
	France	+33 1 72 11 00 03		Sri Lanka	+65 3158 1195
	Germany	+49 89 220 61012		Taiwan	+886 2 8793 3212
	Spain	+34 91 114 2520		Japan	+81 3 4578 9341
	Italy	+39 02 3604 2884		Indonesia	007 803 011 0293
	Netherlands	+31 10 713 8195		Malaysia	+60 3 6207 4347

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	Norway	+47 2103 4452	-	India	+65 3158 1198 000 800 100 7479
	Greece	+30 21 1198 3182		Pakistan	+65 3158 1329
	Portugal	+351 30880 4750		Bangladesh	+65 3158 1200
	Denmark	+45 8988 2286		Philippines	+63 2 8231 2149
	Sweden	+46 8 566 42573		Vietnam	+84 28 4458 2388
	Poland	+48 22 307 3690		Korea	+65 3158 1285
	Czech replublic	+420 228 882 830		South Korea	+82 2 3479 8401
	Finland	+358 9 7479 0199		Australia	+61 2 8014 4558
Middle East/Africa	All Middle East/Africa	+44 1235 239671		New Zealand	+64 9 929 1483
		+44 1235 239671		China	+86 532 8388 9090
	Africa/South Africa	+27 21 300 2732		Mexico	+52 55 5004 8763
NOAM	USA and Canada	+1 866 928 0789	LATAM	Brazil	+55 11 3197 5891
	USA and Canada	+1 215 207 0061		Chile	+56 2 2582 9336
	USA and Canada	+1 202 464 2554		Colombia	+57 1 508 7337
Global	Global	+44 1865 407333		Argentina	+54 11 5984 3690

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Key or legend to abbreviations and acronyms used in the safety data sheet

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM -American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL -Domestic Substances List (Canada): ECHA - European Chemicals Agency; EC-Number -European Community number; ECx - Concentration associated with x% response; ELx -Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC -International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG -International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL -Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances: (Q)SAR - (Quantitative) Structure Activity Relationship; REACH -Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Information displayed in section 3 (Composition/information on ingredients) is additional information to understand the hazards of the product and ensure safe handling, storage and transportation. This information, including CAS numbers, is not meant to be used for registration, notification or any other purposes. Any additional information and documentation needed may be provided by Givaudan.

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