

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Givaudan

METHYL TUBERATE PURE

Version 2.1

Revision Date 29 JUN 2021

Print Date 29 JUN 2021

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

1.1 Product identifier

Sales No. : 9411003
METHYL TUBERATE PURE

Substance name : 4-METHYL-5-PENTYL-4,5-DIHYDRO-2(3H)-FURANONE &
3-METHYL-2-NONENOIC ACID

Identifier

CAS-No. : 33673-62-0
35205-76-6

EC-No. : 251-629-4
252-435-2

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)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Administrative information:

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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

3.2 Mixtures

Remarks : No hazardous ingredients

SECTION 4. First aid measures

4.1 Description of first aid measures

General advice : 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 : Take off contaminated clothing and shoes immediately.
If on skin, rinse well with water.

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

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SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry chemical
Alcohol-resistant foam
Carbon dioxide (CO₂)
Water spray

Unsuitable extinguishing media : no data available

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : no data available

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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 : Wipe up with absorbent material (e.g. cloth, fleece).
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 : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

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Advice on protection against fire and explosion : Normal measures for preventive fire protection.
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 : Electrical installations / working materials must comply with the technological safety standards.
Further information on storage conditions : Ambient / 10-30°C (50 -85°F)
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.
Skin and body protection : Wear working clothes covering arms and legs.
Hygiene measures : Do not eat, drink or smoke during work.

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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 | : Floral, Tuberose, Coconut-like, Earthy |
| Odour Threshold | : 0,838 ng/l |
| Flash point | : 120 °C Method: Grabner miniflash closed cup |
| Lower explosion limit | : not determined |
| Upper explosion limit | : not determined |
| Flammability | : no data available |
| Oxidizing properties | : no data available |
| Auto-ignition temperature | : no data available |
| Decomposition temperature | : no data available |
| Molecular weight | : 170,00 g/mol |
| pH | : no data available |
| Melting point | : not determined |
| Boiling point | : not determined |
| Vapour pressure | : 0,0059 hPa at 20 °C Method: OECD Test Guideline 104 |

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| | |
|--|---|
| Density | : 943,29 kg/m3 at 20 °C |
| Bulk density | : Not applicable |
| Water solubility | : 455 mg/l at 25 °C |
| Solubility/qualitative | : Very slightly soluble |
| Partition coefficient: n-octanol/water | : log Pow: 2,5 Method: OECD Test Guideline 117 |
| Viscosity, kinematic | : no data available |
| Relative vapour density | : no data available |
| Evaporation rate | : no data available |
| Explosive properties | : no data available |

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 : Stable under recommended storage conditions., No hazards to be specially mentioned.

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 products : no data available
Thermal decomposition : no data available

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : This information is not available.

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Acute inhalation toxicity : This information is not available.

Acute dermal toxicity : This information is not available.

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

Skin corrosion/irritation

Skin irritation : Species: Rabbit
No skin irritation
Method: OECD Test Guideline 404

Serious eye damage/eye irritation

Eye irritation : No data is available on the product itself.

Respiratory or skin sensitisation

Sensitisation : HRIPT Human
Result: Not sensitizing
at 1 % in Dimethyl phthalate

Maximisation Test Guinea pig
Result: Not sensitizing
Method: OECD Test Guideline 406

Germ cell mutagenicity

Genotoxicity in vitro : Ames test
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 Toxicant - Single exposure : No data is available on the product itself.

Target Organ Systemic Toxicant - Repeated exposure

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Target Organ Systemic Toxicant - Repeated exposure : No data is available on the product itself.

Aspiration hazard

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

Phototoxicity

Phototoxicity : UV-VIS absorption spectra
Result:negative

Further information : no data available

SECTION 12. Ecological information

12.1 Toxicity

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

Toxicity to bacteria : no data available

Toxicity to fish (Chronic toxicity) : no data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : no data available

Short-term (acute) aquatic hazard : no data available

Long-term (chronic) aquatic hazard : no data available

Toxicity Data on Soil : no data available

Other organisms relevant to the environment : no data available

12.2 Persistence and degradability

Biodegradability : Result: Readily biodegradable.
82 %
Method: OECD Test Guideline 301 F

12.3 Bioaccumulative potential

Bioaccumulation : no data available

12.4 Mobility in soil

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Mobility : no data available
Distribution among environmental compartments : no data available
Additional advice : no data available
Environmental fate and pathways
Physico-chemical removability : no data available

12.5 Results of PBT and vPvB assessment

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) : no data available
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : no data available
Adsorbed organic bound halogens (AOX) : no data available
Additional ecological information : no data available

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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

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14.4 Packing group

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 : Not applicable
LegislationWater contaminating class : WGK 3 highly hazardous to water
(Germany) Classification according to AwSV, Annex 1 (5.2)**15.2 Chemical safety assessment**

A Chemical Safety Assessment is not required for this substance.

SECTION 16. Other information**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 |
| | Turkey | +90 212 375 5231 | | Thailand | 001 800 120 666 751 |
| | Norway | +47 2103 4452 | | India | +65 3158 1198 000 800 100 7479 |

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| | | | | | |
|--------------------|-------------------------|------------------|-------|-------------|-------------------|
| | 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 republic | +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 |
| | Bahrain and Middle East | +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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