



2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl- synerzine™ Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 06/02/2015 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Substance
Substance name : 2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl-
CAS-No. : 698-10-2
Product code : (US) W0569
Formula : C7H10O3
Synonyms : 5-Ethyl-3-hydroxy-4-methyl-2(5H)-furanone / 5-Ethyl-3-hydroxy-4-methylfuran-2(5H)-one / Furan-2(5H)-one, 5-ethyl-3-hydroxy-4-methyl- / 2,4-Dihydroxy-3-methyl-hex-2-enoic acid-4-lactone / 2-Ethyl-3-methyl-4-hydroxydihydro-(2,5)-furan-5-one / 5-Ethyl-3-hydroxy-4-methyl-5H-furan-2-one / 3-Hydroxy-4-methyl-5-ethyl-2(5H)-furanone

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Synerzine
5340 Hwy 42 S
Ellenwood, Georgia 30294 - USA
T 404-524-6744 - F 404-577-1651
info@synerzine.com - www.synerzine.com

1.4. Emergency telephone number

Emergency number : Infotrac 1-800-535-5053 (Contract# 102471) Dial +1-352-323-3500 when outside the US

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

| Name | Product identifier | % | GHS-US classification |
|---|--------------------|----------|-----------------------|
| 2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl- (Main constituent) | (CAS-No.) 698-10-2 | 98 - 100 | Not classified |

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl-

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl-

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Appearance | : A syrupy yellow liquid. |
| Color | : Yellow |
| Odor | : caramel, maple odor |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : 305 °C |
| Flash point | : > 230 °F closed cup |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Specific gravity / density | : 1.13 - 1.15 g/cm ³ |
| Molecular mass | : 142.15 g/mol |
| Solubility | : Soluble in water. soluble in alcohols. glycols. |
| Log Pow | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl-

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|--|------------------|
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity – single exposure | : Not classified |
| Specific target organ toxicity – repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|-------------------|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
|-------------------|--|

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

| | |
|-------------------------|---|
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
|-------------------------|---|

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

| | |
|--------------------------------|---|
| Transport document description | : UN3335 Aviation regulated solid, n.o.s., 9 |
| UN-No.(DOT) | : UN3335 |
| Proper Shipping Name (DOT) | : Aviation regulated solid, n.o.s. |
| Class (DOT) | : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140 |
| Hazard labels (DOT) | : 9 - Class 9 (Miscellaneous dangerous materials) |



| | |
|---|--|
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : 204 |
| DOT Symbols | : A - Material is regulated as a hazardous material only when transported by air,G - Identifies PSN requiring a technical name |

2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl-

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|--|--|
| DOT Special Provisions (49 CFR 172.102) | : A35 - This includes any material which is not covered by any of the other classes but which has an anesthetic, narcotic, noxious or other similar properties such that, in the event of spillage or leakage on an aircraft, extreme annoyance or discomfort could be caused to crew members so as to prevent the correct performance of assigned duties. |
| DOT Packaging Exceptions (49 CFR 173.xxxx) | : 155 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 400 kg |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 400 kg |
| DOT Vessel Stowage Location | : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. |
| Other information | : No supplementary information available. |

Transportation of Dangerous Goods

Transport by sea

| | |
|---------------------------------------|---|
| Transport document description (IMDG) | : UN 3335 AVIATION REGULATED SOLID, N.O.S., 9 |
| UN-No. (IMDG) | : 3335 |
| Proper Shipping Name (IMDG) | : AVIATION REGULATED SOLID, N.O.S. |
| Class (IMDG) | : 9 - Miscellaneous dangerous substances and articles |

Air transport

| | |
|---------------------------------------|---|
| Transport document description (IATA) | : UN 3335 Aviation regulated solid, n.o.s., 9 |
| UN-No. (IATA) | : 3335 |
| Proper Shipping Name (IATA) | : Aviation regulated solid, n.o.s. |
| Class (IATA) | : 9 - Miscellaneous Dangerous Goods |

SECTION 15: Regulatory information

15.1. US Federal regulations

2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl- (698-10-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl- (698-10-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl- (698-10-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl- (698-10-2)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

No additional information available

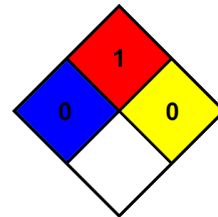
2(5H)-Furanone, 5-ethyl-3-hydroxy-4-methyl-

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 16: Other information

- NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.
- NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

- Health : 0 Minimal Hazard - No significant risk to health
- Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
- Personal protection : B
B - Safety glasses, Gloves

Synerzine US

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product