

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

Date of issue: 06/04/2015 Version: 1.0

# SECTION 1: Identification

#### 1.1. Identification

Product form : Substance Substance name 4-Hexen-1-ol, (Z)-CAS-No. 928-91-6 Product code : (US) W01701 Formula : C6H12O

(Z)-Hex-4-en-1-ol / Hex-4-en-1-ol, (Z)- / 4-Hexen-1-ol, (4Z)- / Hex-4(cis)-en-1-ol / cis-4-Hexen-1-Synonyms

#### 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

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

# SECTION 2: Hazard(s) identification

#### Classification of the substance or mixture

#### GHS-US classification

Flammable liquids Category Combustible liquid H227

Full text of H statements: see section 16

# GHS Label elements, including precautionary statements

#### **GHS-US** labeling

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H227 - Combustible liquid

Precautionary statements (GHS-US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking. heat, hot surfaces, open flames, sparks

P280 - Wear eye protection, face protection, protective clothing, protective gloves. P370+P378 - In case of fire: Use alcohol resistant foam, dry sand to extinguish.

P403+P235 - Store in a well-ventilated place. Keep cool.

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

#### Other hazards which do not result in classification

No additional information available

#### Unknown acute toxicity (GHS US)

Not applicable

# SECTION 3: Composition/Information on ingredients

#### Substances

| Name               | Product identifier | %        | GHS-US classification |
|--------------------|--------------------|----------|-----------------------|
| 4-Hexen-1-ol, (Z)- | (CAS-No.) 928-91-6 | 92 - 100 | Flam. Liq. 4, H227    |
| (Main constituent) |                    |          |                       |

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

#### 3.2. Mixtures

Not applicable

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#### 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

#### 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

Fire hazard : Combustible liquid.

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. No open flames, no sparks, and no smoking.

# **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. Notify authorities if product enters sewers or public

waters.

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. Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking. 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

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#### 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:

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 colorless liquid.

Color : colorless

Odor : cooked vegetable green note

Odor threshold No data available No data available рΗ Melting point Not applicable Freezing point No data available **Boiling** point 159 - 160 °C Flash point 142 °F TCC Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Not applicable. Vapor pressure No data available No data available Relative vapor density at 20 °C : No data available Relative density  $0.85 - 0.86 \text{ g/cm}^3$ Specific gravity / density

Solubility No data available Log Pow : No data available Auto-ignition temperature No data available Decomposition temperature No data available No data available Viscosity, kinematic 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.

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#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

#### 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.

### 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 : NA1993 Combustible liquid, n.o.s., 3, III

UN-No.(DOT) : NA1993

Proper Shipping Name (DOT) : Combustible liquid, n.o.s.

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

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Packing group (DOT) : III - Minor Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203 DOT Packaging Bulk (49 CFR 173.xxx) : 241

**DOT Symbols** : D - Proper shipping name for domestic use only, or to and from Canada, G - Identifies PSN requiring

DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite

(31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T1 - 1.5 178.274(d)(2) Normal...... 178.275(d)(2) T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) DOT Quantity Limitations Passenger aircraft/rail : 60 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L

CFR 175.75)

**DOT Vessel Stowage Location** : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger

Other information : No supplementary information available.

**Transportation of Dangerous Goods** 

Transport by sea

Air transport

#### SECTION 15: Regulatory information

# 15.1. US Federal regulations

#### 4-Hexen-1-ol, (Z)- (928-91-6)

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

#### 15.2. International regulations

#### **CANADA**

#### 4-Hexen-1-ol, (Z)- (928-91-6)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

# 4-Hexen-1-ol, (Z)- (928-91-6)

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

#### National regulations

# 4-Hexen-1-ol, (Z)- (928-91-6)

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 the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

### 15.3. US State regulations

No additional information available

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# SECTION 16: Other information

| Full             | text of H-phrases: |  |
|------------------|--------------------|--|
|                  | Н227               | Combustible liquid   |
| NFPA             | health hazard      | : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.       |
| NFPA fire hazard |                    | : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. |

Hazard Rating

: 0 Minimal Hazard - No significant risk to health

Flammability : 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

: 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.

: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous

temperatures and pressures. Materials may react non-violently with water or undergo h polymerization in the absence of inhibitors.

C - Safety glasses, Gloves, Synthetic apron

Synerzine US

Personal protection

NFPA reactivity

Health

Physical

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

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