

HEALTH	2
FLAMMABILITY	2
REACTIVITY	0

Section 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name	Strawberry Furanone 10% in ETOH, Natural
Product Number	0317410
CAS-No.	3658-77-3 / 64-17-5

1.2 Product Recommended Use

Flavorings

1.3 Preparation Information

Company	Aurochemicals 7 Nicoll Street Washingtonville, NY 10992
Telephone	845-496-6065
Fax	845-496-6248

1.4 Emergency Telephone Number

1-800-535-5053
International - 1-352-323-3500 collect

Section 2: HAZARD(s) IDENTIFICATION

2.1 Classification of substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319

2.2 GHS Label Elements, Including precautionary statements

Pictogram



Signal Statement

Danger

Hazard Statement(s)

H225 Highly flammable liquid and vapor
H315 Cause skin irritation
H319 Causes serious eye irritation

Precautionary Statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces-No Smoking
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash skin thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 IF ON SKIN: Wash with plenty of soap and water
305+P351+P338 IF IN EYES: Rinse cautiously with water to several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention
P337+P313 If eye irritation persists: Get medical advice/attention
P362 Take off contaminated clothing and wash before reuse
P403+P235 Keep container tightly closed

- P241 Use explosion-proof electrical/ventilating/lighting/equipment
 P242 Use only non sparking tools
 P243 Take precautions measures against static discharge
 P403+P235 Store in a well ventilated place. Keep cool
 P501 Dispose of contents/container to an approved waste disposal plant

2.3 HNOC (Hazards not otherwise classified or not covered by GHS –None)

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms	4-Hydroxy-2,5-Dimethyl-3(2H)-Furanone Solution
Formula	Blend (Mixture)
Molecular Weight	No data available
CAS-No	3658-77-3/64-17-5
EC-No.	222-908-8/200-578-6

Hazardous Components

Component	Classification	Concentration
4-Hydroxy-2,5-dimethylfuran-2(3H)-one	Acute Toxicity, Oral (Category 4), H302	10%
Ethanol	Flammable liquids (Category 2), H225	90%

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Consult physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area
Inhalation	If headache, irritation, nausea or drowsiness occurs, provide fresh air; keep at rest and at a comfortable position to breathe. Consult a physician
Contact with skin:	Remove contaminated clothing. Rinse skin with cool water then wash with mild soap and warm water and if irritation or other symptoms occur, contact a physician.
Contact with eyes:	Rinse thoroughly with plenty of water for at least 15 as a precaution, remove contacts if present and easy to do and consult a physician.
Ingestion	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a POISON CONTROL CENTR or physician.
Clothing contamination:	Remove contaminated clothing and wash before reuse.

4.2 Most important symptoms and effects both acute and delayed

See section 2.2 and or section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture

Highly flammable. Vapors heavier than air. Forms explosive mixtures with air at ambient temperatures. Development of hazardous combustion gases or vapors possible in the event of fire: Carbon oxides

5.3 Advice for fire fighters

Wear self contained breathing apparatus for firefighting if necessary. Emits toxic fumes under fire conditions. Combustible liquid, avoid heat, sparks and open flames.

5.4 Further information

Use water spray to cool unopened containers. Prevent contact with skin and eyes.

Section 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe area. Beware of vapors accumulating to form explosive concentrations. **Vapors can accumulate in low areas.**
- 6.2 Environment precautions** Prevent further leakage or spillage if safe to do so. Do not allow to enter drains or sewage system.
- 6.3 Methods and materials for containment and clean up** Contain spillage. Soak up with absorbent material. Sweep up with broom and shovel. Place in a suitable, closed container for disposal.
- 6.4 Specific end use(s)** Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

Section 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling** Avoid contact with skin and eyes. Avoid Inhalation of vapor or mist. Avoid prolonged or repeated exposure. Use explosion proof equipment. Keep away from sources of ignition – No smoking. Take measures to prevent the buildup of electrostatic charge. When using do not eat or drink. Wash hands thoroughly after handling. Normal measures for preventive fire protection.
- 7.2 Conditions for Safe storage** Keep container tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Hydroscopic
- 7.3 Specific End use(s)** Flavorings

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters:**
Components with workplace control parameters

Component	CAS -No.	Value	Control Parameters	Basis
Ethanol	64-17-5	TWA	1,000 ppm	USA. ACGIH Threshold Limit Values
	Remarks	Upper respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans		
		TWA	1,000 ppm 1,900 mg/m ³	USA. Occupational Exposure Limits (OSHA)-Table Z-1 Limits for Air Contaminants
		The value in mg/m ³ is approximate		
		TWA	1,000 ppm 1,900 mg/m ³	USA. NIOSH Recommended Exposure Limits

- 8.2 Exposure Controls:**
- Appropriate Engineering Controls** Avoid contact with skin, eyes and clothing. Use under appropriate exhaust ventilation when handling this product. Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product; before breaks and at the end of the day. Safety shower and eye wash stations available near processing / storage areas
- Personal protective equipment** These recommendations are advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. They should not be construed as offering an approval for any specific use scenario.
- Eye/face protection** Wear appropriate safety glasses with side shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or

EN 166 (EU).

Skin protection	Wear chemically resistant, rubber gloves, when handling this product. Use proper glove removal techniques (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.
Body protection	Impervious clothing protecting against chemicals, should be selected specifically for the work place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
Respiratory protection	Where risk assessment shows air purifying respirators are appropriate use a full face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a back up to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate governmental standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a	Appearance	Liquid Colorless to pale yellow
b	Odor	Strawberry
c	Odor Threshold	No data available
d	pH	No data available
e	Melting Point /Freezing Point	No data available
f	Boiling Point	187°C
g	Flash Point	107°C closed cup
h	Evaporation Rate	No data available
i	Flammability (Solid, Gas)	No data available
j	Upper/lower Flammability Limit	No data available
k	Vapor pressure	No data available
l	Vapor density	No data available
m	Relative density at 25°C	0.906-0.916
n	Solubility	Soluble in water and organic solvents
o	Partition coefficient: n-octanol/water	No data available
p	Auto-ignition Temp.	No data available
q	Decomposition Temp.	No data available
r	Viscosity	No data available
s	Explosive properties	No data available
t	Oxidizing properties	No data available

9.2 Other Safety Information No data available

Section 10: STABILITY AND REACTIVITY

10.1	Reactivity	No data available
10.2	Chemical Stability	Stable under recommended storage conditions

10.3	Possibility of Hazardous reactions	No data available
10.4	Conditions to avoid	Excessive heat, open flames or other sources of ignition
10.5	Incompatible materials	Strong acids, alkalies, and or oxidizing agents
10.6	Hazardous decomposition products	Carbon monoxide, carbon dioxide
10.7	Further Information	No data available

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

This product is a mixture and has not been tested for health hazards. The health hazard information presented below is provided in accordance with 29CFR 1910.1200 and is based on the testing of individual component which have been shown to cause the following health effects when tested at higher concentrations or at full strength.

Acute Toxicity

LD50-Oral	No data available
LC50-Inhalation	No data available
LD50-Dermal	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell mutagenicity	No data available
Further Toxicological Information	May be harmful if inhaled, swallowed or if absorbed through the skin

Carcinogenicity

IARC	No component of this product, present levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product, present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No component of this product, present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No component of this product, present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity	No data available
Specific target organ toxicity-single exposure (GHS)	No data available
Specific target organ toxicity-repeated exposures (GHS)	No data available
Aspiration Hazards	No data available
Signs and Symptoms of Exposure	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Synergistic effect	No data available
RTECS:	Not available

Section 12: ECOLOGICAL INFORMATION

12.1	Toxicity	No data available
12.2	Persistence and degradability	No data available
12.3	Bioaccumulative potential	No data available
12.4	Mobility in soil	No data available

Safety Data Sheet

12.5	Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required / not conducted
12.6	Other adverse effects	Do not allow to enter water, drain or soil

Section 13: DISPOSAL CONSIDERATIONS

13.1	Disposal methods	
	Product:	According to local regulations
	Packaging	According to local regulations

Section 14: TRANSPORT INFORMATION

DOT (US)	UN-Number: 1170	Class: 3	Packing Group: II
Proper shipping name:	Flammable liquid, Ethanol Solution n.o.s.		
Marine Pollutant:	No		
Poison Inhalation Hazard:	No		
IMDG	UN-Number: 1170	Class: 3	Packing Group: II
Proper shipping name:	FLAMMABLE LIQUID, Ethanol Solution N.O.S.		
Marine Pollutant:	No		
IATA	UN-Number: 1197	Class: 3	Packing Group: II
Proper shipping name:	Flammable liquid, Ethanol Solution n.o.s.		

Section 15: REGULATORY INFORMATION

Reach No.	A registration number is not available for this substance as its uses are exempted from registration, the annual tonnage not require a registration or the registration is envisaged for a later registration deadline.		
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302		
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.		
SARA 311/312 Hazards	Fire Hazards, Chronic Health Hazard		
Massachusetts Right to Know components	Ethanol	CAS# 64-17-5	Rev. Date: 3/1/2007
Pennsylvania Right to Know components	4-Hydroxy-2,5-dimethylfuran-2(3H)-one	CAS# 3658-77-3	
	Ethanol	CAS# 64-17-5	Rev. Date: 3/1/2007
New Jersey Right to Know components	Ethanol	CAS# 64-17-5	Rev. Date: 3/1/2007
	4-Hydroxy-2,5-dimethylfuran-2(3H)-one	CAS# 3658-77-3	
California Prop. 65 components	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.		

Section 16: OTHER INFORMATION

HMIS Rating	
Health hazard	2
Chronic Health Hazard	

Safety Data Sheet

Flammability 2
Physical Hazard 0

Further Information

Aurochemicals provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Aurochemicals makes no representations or warranties, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Aurochemicals will not be responsible, nor held liable, for damages resulting from use of or reliance upon this information.

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