

Safety Data Sheet

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0

Section 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name	Sulfurol, 5% Solution in ETOH Natural
Product Number	0320405
CAS-No.	137-00-8 / 64-17-5

1.2 Product Recommended Use

Flavorings

1.3 Preparation Information

Company	Aurochemicals 7 Nicoll Street Washingtonville, NY 10992
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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

Specific target organ toxicity-Single Exposure (Category 3), Respiratory System, H335

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

H335

May cause respiratory irritation

Precautionary Statement(s)

P210

Keep away from heat/sparks/open flames/hot surfaces – No smoking

P233

Keep container tightly closed

P240

Ground/bond container and receiving equipment

P241

Use explosion proof electrical/ventilating/lighting/equipment

P242

Use only non sparking tools

P243

Take precautionary measures against static discharge

P261

Avoid breathing dust/fume/gas/mist/vapors/spray

P264

Wash skin thoroughly after handling

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P271	Use only outdoors or in a well ventilated area
P280	Wear protective gloves/eye protection/face protection
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse with water/shower
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water to several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell
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
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol resistant foam for extinction.
P403+P233	Store in a well ventilated place. Keep container tightly closed
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 – STENCH)

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms	4-Methyl-5-thiazoleethanol / ETOH Solution Sulfurol 5% Solution in ETOH (Ethyl Alcohol)
Formula	C ₆ H ₉ NOS
CAS-No	137-00-8 / 64-17-5
EC-No.	205-272-6 / 200-578-6

Hazardous Components

Component	Classification	Concentration
2-(4-Methylthiazol-5-yl)ethanol	Skin irritation (2), H315 Eye irritation (2A), H319 Specific target organ toxicity-Single Exposure (3), Respiratory System,(3) H335	5%
Ethanol	Flammable Liquid (2), H225	95%

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	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 contact a physician.
Contact with eyes:	Rinse thoroughly with plenty of water for at least 15 as a precaution and consult a physician.
Ingestion	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Clothing contamination:	Remove contaminated clothing and wash before reuse.

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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 Carbon oxides, Nitrogen oxides (NOx), Sulfide Oxides
- 5.3 Advice for fire fighters Wear self contained breathing apparatus for firefighting if necessary. Emits toxic fumes under fire conditions
- 5.4 Further information Use water spray to cool unopened containers.

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.
- 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. Normal measures for preventive fire protection.
- 7.2 Conditions for Safe storage 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.
- 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 (TLV)
	Remarks:	Upper respiratory tract irritation Confirmed animal carcinogen with unknown relevance to humans		
		TWA	1,000 ppm 1,190 mg/m3	USA Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminate
		The value in mg/m3 is approximate		
		TWA	1,000 ppm 1,190 mg/m3	USA NIOSH Recommended Exposure Limits

- 8.2 Exposure Controls

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Appropriate Engineering Controls	Avoid contact with skin, eyes and clothing. 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.
Personal protective equipment	These recommendations are advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situations of anticipated use by our customers. They should not be construed as offering an approval or 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, Butyl rubber gloves, 0.3 mm thick, 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	Meaty, nutty
c	Odor Threshold	No data available
d	pH	No data available
e	Melting Point /Freezing Point	114oC
f	Boiling Point	78oC
g	Flash Point	~20°C closed cup
h	Evaporation Rate	No data available
i	Flammability (Solid, Gas)	No data available
j	Upper/lower Flammability Limit	Upper explosion limit: 19% (V) Lower explosion limit: 3.3% (V)
k	Vapor pressure	59.5 hPa at 20°C
l	Vapor density	No data available
m	Relative density at 25°C	0.789
n	Solubility	Soluble in water, ether, benzene, chloroform

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Miscible in ethanol at room temperature

o	Partition coefficient: n-octanol/water	No data available
p	Auto-ignition Temp.	363.0°C
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	Vapors may form explosive mixture with air
10.4	Conditions to avoid	Heat, flames and sparks, Extremes of temperature and direct sunlight
10.5	Incompatible materials	Strong oxidizing agents Alkali metals, Ammonia, Peroxides
10.6	Hazardous decomposition products	No data available
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 –Rat	7,060 mg/kg Remarks: Lungs, Thorax, or Respiration: Other changes
LC50-Inhalation-Rat	20,000 ppm 10 hr
LD50-Dermal	No data available
Skin corrosion/irritation	Rabbit: No skin irritation – 24hr (OECD Test Guideline 404)
Serious eye damage/eye irritation	Rabbit: Mild eye irritation – 24 hr (OECD Test Guideline 405)
Respiratory or skin sensitization	No data available
Germ Cell mutagenicity	No data available

Carcinogenicity

	Carcinogenicity: Mouse- Oral Tumorigenic Equivocal Tumorigenic agent by RTECS criteria: Liver: Tumors Blood: Lymphomas including Hodgkin's Disease
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.
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.

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Reproductive toxicity	Human: - Female – Oral Effects on Newborn: Apgar score (human only) Other neonatal measures or effects on Newborn: Drug dependence.
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	Central nervous system depression, narcosis, Damage to the heart. Heart irregularities – Based on human evidence Stomach irregularities – Based on human evidence
Synergistic effect	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
RTECS:	No data available Not available

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Not available
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
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	No data available

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 (Ethyl Alcohol Solution)
Reportable Quantity (RQ):	No
Marine Pollutant:	No
Poison Inhalation Hazard:	No
IMDG	UN-Number 1170 Class 3, Packing Group II
Proper Shipping Name:	Flammable liquid (Ethyl Alcohol Solution) EMS-No: F-E, S-D
Marine Pollutant:	No
IATA	UN-Number: 1170 Class: 3, Packing Group: II
Proper shipping name:	Flammable liquid (Ethyl Alcohol Solution)

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
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SARA 302 Components

envisaged for a later registration deadline.

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 Hazard, Chronic Health Hazard, Acute health hazard

Massachusetts Right to Know components

Ethanol

CAS# 64-17-5

Rev. Date: 3/1/2007

Pennsylvania Right to Know components

(2-(4-Methylthiazol-5-yl)ethanol)
EthanolCAS# 137-00-8
CAS # 64-17-5Rev. Date:
Rev. Date: 3/1/2007

New Jersey Right to Know components

(2-(4-Methylthiazol-5-yl)ethanol)
EthanolCAS# 137-00-8
CAS # 64-17-5Rev. Date:
Rev. Date: 3/1/2007

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*
Flammability 3
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.

Issued by:	Contact Person:
Aurochemicals	Deo N. Persaud
7 Nicoll Street	8/21/2022
Washingtonville, NY 10992 USA	