

HEALTH	2
FLAMMABILITY	2
REACTIVITY	0

Section 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name	Methional 1% in Triacetin, Natural
Product Number	0274701
CAS-No.	3268-49-3 / 102-76-1

1.2 Product Recommended Use **Flavorings**

1.3 Preparation Information

Company	Aurochemicals 7 Nicoll Street Washingtonville, NY 10992- USA
---------	--

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 the substance or mixture

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

Acute toxicity, Oral (Category 4)
Skin irritation (Category 2), H315
Serious eye damage (Category 1), H318
Skin sensitization (Category 1), H317

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label Elements, Including precautionary statements

Pictogram



Signal Statement

Warning

Hazard Statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

Precautionary Statement(s)	P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
	P264	Wash skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P271	Use only outdoors or in a well-ventilated area.
	P280	Wear protective gloves/ protective clothing/ eye protection/ face protection
	P301+P312+	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you
	P330	feel unwell. Rinse mouth.
	P302 + P352 +	IF ON SKIN: Wash with plenty of soap and water. Call a POISON
	P312	CENTER or doctor/ physician if you feel unwell.
	P304 + P340 +	IF INHALED: Remove person to fresh air and keep comfortable for
	P312	breathing. Call a POISON CENTER or doctor/ physician if you feel
		unwell.
	P305 + P351 +	IF IN EYES: Rinse cautiously with water for several minutes. Remove
	P338 + P310	contact lenses, if present and easy to do. Continue rinsing.
		Immediately call a POISON CENTER or doctor/ physician.
	P333 + P313	If skin irritation or rash occurs: 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 +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

Synonym	3-(Methylmercapto)propionaldehyde / Citric Acid Triethyl Ester
Formula	C ₄ H ₈ OS / C ₁₂ H ₂₀ O ₇
Molecular Weight	104.17 g/mol / 276.28 g/mol
CAS-No	3268-49-3 / 77-93-0

Hazardous Components

Component	Classification	Concentration
Triethyl citrate		~99%
3-(Methylmercapto)propionaldehyde	Flam. Liq. 4; Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1; Aquatic Chronic 3; H227, H302 + H332, H311, H315, H317, H318, H412	~1 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Contact with skin:	Remove contaminated clothing. Rinse skin with cool water then wash with mild soap and warm water.

Contact with eyes:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.
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	For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
5.2 Special hazards arising from the substance or mixture	Carbon oxides, sulfur oxides
5.3 Advice for fire fighters	Wear self contained breathing apparatus for firefighting if necessary.
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 areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.
6.2 Environmental precautions	Prevent further leakage or spillage. Discharge into the environment must be avoided. Do not allow to enter drains or sewage system.
6.3 Methods and materials for containment and clean up	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
6.4 Reference to other sections	For disposal see section 13.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.2.
7.2 Conditions for Safe storage	Store in cool place. 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

Contains no substances with occupational exposure limit values

8.2 Exposure Controls

Appropriate Engineering Controls Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the workday.

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 Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 56 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail

sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection Impervious clothing, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup 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 government 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.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a Appearance Colorless to pale yellow liquid

b	Odor	Slight Fat Odor
c	Odor Threshold	No data available
d	pH	No data available
e	Melting Point /Freezing Point	No data available
f	Initial boiling point	258-259 °C
g	Flash Point	138°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 @25°C	No data available
n	Solubility	Soluble in alcohol and propylene glycol; insoluble in water
o	Partition coefficient:	No data available
p	Auto-ignition Temp.	433°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	No data available
10.4 Conditions to avoid	Heat, flames and sparks.
10.5 Incompatible materials	Strong oxidizing agents, Strong bases
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	
Acute Toxicity	
LC50-Oral –Rat (male & female)	Rat - 4 h - > 2,000 mg/l
LC50-Inhalation	Rat - males - > 1,721 mg/kg
LD50 Dermal	Rat - females - 833 mg/kg
Skin corrosion/irritation	Skin – Rabbit. Result: Irritating to skin
Serious eye damage/eye irritation	Eyes – Rabbit Result: Risk of serious damage to eyes

Respiratory or skin sensitization	Maximization Test (GPMT) - Guinea pig May cause allergic skin reaction.
Germ Cell mutagenicity	No data available
Carcinogenicity	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Reproductive toxicity	No data available
Teratogenicity	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	<p>Gastrointestinal disturbance, Nausea, Headache, Vomiting</p> <p>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated</p>
Synergistic effects	No data available
RTECS:	Not available

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity	
Toxicity to fish	static test LC50 - Danio rerio (zebra fish) - 14 mg/l - 24 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 4.5 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	NOEC - Desmodesmus subspicatus (green algae) - 1 mg/l - 72 h
12.2 Persistence and degradability	
Biodegradability	Result: - Readily biodegradable (Directive 67/548/EEC Annex V, C.4.A.)
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	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Product:	According to local regulations
Packaging	According to local regulations

Section 14: TRANSPORT INFORMATION

DOT (US)	Not a dangerous goods
IMDG	Not a dangerous goods
IATA	Not a dangerous goods

Section 15: REGULATORY INFORMATION

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	No SARA Hazards		
Massachusetts Right to Know components	No components are subject to the Massachusetts Right to Know Act		
Pennsylvania Right to Know components	3-(Methylmercapto)propionaldehyde	CAS# 3268-49-3	Rev. Date:
	Triacetin	CAS# 102-76-1	Rev. Date:
New Jersey Right to Know components	3-(Methylmercapto)propionaldehyde	CAS# 3268-49-3	Rev. Date:
	Triacetin	CAS# 102-76-1	Rev. Date:
California Prop. 65 components	This product does not contain any chemical known to the State of California to cause cancer, birth defects, or any other reproductive harm.		

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

HMIS Rating

Health hazard	2
Chronic Health Hazard*	
Flammability	2
Physical Hazard	0

NFPA Rating

Health hazard:	2
Fire Hazard:	2
Reactivity Hazard:	0

Further Information

Safety Data Sheet

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	8/16/2022
Washingtonville, NY 10992 USA	

Aurochemicals