Safety Data Sheet

The Natural Choice for Flavor and Fragrance Ingredients

HEALTH	2
FLAMMABILITY	2
REACTIVITY	0

Section 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name	**Methyl-2-Nonenoate, Natural**
Product Number	**0272500**
CAS-No.	**111-79-5**

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)
Flammable liquids (Category 4), H227
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Acute aquatic toxicity (Category 2), H401
Chronic aquatic toxicity (Category 2), H411

2.2 GHS Label Elements, Including precautionary statements

Pictogram

Signal Statement: Warning

Hazard Statement(s)	H227	Combustible liquid
	H315	Causes skin irritation.
	H319	Causes serious eye irritation.
	H411	Toxic to aquatic life with long lasting effects.
Precautionary Statement(s)	P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
	P264	Wash skin thoroughly after handling.
	P273	Avoid release to the environment.

P280	Wear protective gloves/ protective clothing/ eye protection/face protection.
P302+P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P305+P351+ P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see supplemental first aid instructions on this label).
P321	If skin irritation occurs: Get medical advice/ attention.
P332+P313	If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.
P337+P313	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam
P362	for extinction.
P370+P378	Store in a well-ventilated place. Keep container tightly closed.
P403 +P233	Store in a well-ventilated place. Keep cool. Collect spillage.
P403 +P235	Dispose of contents/container to an approved waste disposal plant
P391	
P501	

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

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Synonym 2-Nonenoic acid, methyl ester
Formula $C_{10}H_{18}O_2$
Molecular Weight 170.25 g/mol
CAS-No 111-79-5
EC-No. 203-908-7

Hazardous Components

Component	Classification	Concentration
Methyl-2-nonenoate	Flam. Liq. 4; Skin Irrit. 2; Eye Irrit. 2A; Aquatic acute 2; Aquatic chronic 2; H227, H315, H319, H335	<= 100 %

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
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 vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours 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 vapour 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	Form: liquid Colorless or light yellow liquid
b	Odor	Violet-like
c	Odor Threshold	No data available

d	pH	No data available
e	Melting Point /Freezing Point	No data available
f	Initial boiling point and boiling range	115 °C (239 °F)
g	Flash Point	91oC 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 @25oC	0.895
n	Solubility	Insoluble in water; soluble in non-polar solvents and alcohol
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 No data available

10.5 Incompatible materials No data available

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

LD50-Oral (Rat)	>5,000 mg/kg
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
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
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	Gastrointestinal disturbance, Nausea, Headache, Vomiting
	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Synergistic effects	No data available
RTECS:	RA9470000

Section 12: ECOLOGICAL INFORMATION

12.1	**Toxicity (Fish)**	LC50 - Pimephales promelas (fathead minnow) - 1.5 mg/l - 96.0 h Remarks: The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling.
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**	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life

Section 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Product:	According to local regulations
Packaging	According to local regulations

Section 14: TRANSPORT INFORMATION

DOT (US)	NA-Number: 1993; Class: None; Packing group: III Proper shipping name: Combustible liquid, n.o.s (Methyl-2-nonenoate)
IMDG	UN number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Methyl non-2-enoate) Marine pollutant: yes
IATA	UN number: 3082 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Methyl non-2-enoate)
Further information	EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

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	Fire Hazard, Acute Health Hazard
Massachusetts Right to Know components	No components are subject to the Massachusetts Right to Know Act
Pennsylvania Right to Know components	Methyl non-2-enoate CAS# 111-79-5 Rev. Date:
New Jersey Right to Know components	Methyl non-2-enoate CAS# 111-79-5 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

HMIS Rating
Health hazard 2

Chronic Health Hazard*
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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