

Safety Data Sheet



The Natural Choice for Flavor
and Fragrance Ingredients

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0

Section 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name	Levulinic Acid, Natural
Product Number	0262700
CAS-No.	123-76-2

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)

Acute Toxicity (Category 4), H302
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

Warning

Hazard Statement(s)

H303 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Precautionary
Statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapor/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/eye protection/face protection
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Safety Data Sheet

- P302+P352 IF ON SKIN: Wash with plenty of soap and water
 P204+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 for 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.
 P330 Rinse mouth
 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+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 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-Oxovaleric acid 4-Oxopentanoic acid
Formula	C ₅ H ₈ O ₃
Molecular Weight	116.12 g/mol
CAS-No	123-76-2
EC-No.	204-649-2

Hazardous Components

Component	Classification	Concentration
4-Oxovaleric acid	Acute Toxicity (Category 4), H302 Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Specific target organ toxicity-single exposure (Category 3), Respiratory system, H335	

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.

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

Safety Data Sheet

Section 5: FIREFIGHTING MEASURES

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| 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 |
| 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

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| 6.1 | Personal precautions, protective equipment and emergency procedures | Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe area. Avoid breathing dust. |
| 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

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|-----|--------------------------------------|---|
| 7.1 | Precautions for safe handling | Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. |
| 7.2 | Conditions for Safe storage | Keep container tightly closed in a dry and well-ventilated place. |
| 7.3 | Specific End use(s) | Light sensitive
Flavorings |

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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|-----|---|--|
| 8.1 | Control parameters
Components with workplace control parameters: | Contains no substances with occupational exposure limit values. |
| 8.2 | Exposure Controls
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 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). |

Safety Data Sheet

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	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure	Do not let product enter drains.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a	Appearance	Pale to brown liquid – may congeal
b	Odor	Whiskey
c	Odor Threshold	No data available
d	pH	No data available
e	Melting Point /Freezing Point	Melting Point 30-33°C
f	Boiling Point	245°C
g	Flash Point	110°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	1 hPa at 102°C
l	Vapor density	No data available
m	Relative density at 25°C	1.136-1.143
n	Solubility	1mL is soluble in 1mL 95% alcohol, Soluble in water and ether
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	Bases, oxidizing agents, reducing agents
10.6	Hazardous decomposition products	No data available
10.7	Further Information	No data available

Safety Data Sheet

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

LD50-Oral -Rat	1,850 mg/kg
LC50-Inhalation	No data available
LD50-Dermal -Rabbit	>5,000 mg/kg
Skin corrosion/irritation	Rabbit: Skin irritation 24 hr
Serious eye damage/eye irritation	Eye irritation
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
Specific target organ toxicity-single exposure (GHS)	Inhalation – May cause respiratory irritation
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:	O1575000

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
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
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Safety Data Sheet



Packaging

According to local regulations

Section 14: TRANSPORT INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not 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	Acute health hazard		
Massachusetts Right to Know components	No components are subject to the Massachusetts Right to Know Act		
Pennsylvania Right to Know components	4-Oxovaleric acid	CAS# 123-6-2	Rev. Date:
New Jersey Right to Know components	4-Oxovaleric acid	CAS# 123-6-2	Rev. Date:
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	1
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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