# Safety Data Sheet

The Natural Choice for Flavor and Fragrance Ingredients

| | |
|---|---|
| HEALTH | 1 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

**1.1 Product identifiers**

| | |
|---|---|
| Product Name | **Caramel Furanone (Fenugreek Lactone) 3% in Triacetin, Natural** |
| Product Number | **0363403** |
| CAS-No. | **28664-35-9 / 102-76-1** |

**1.2 Product Recommended Use** **Flavorings**

**1.3 Preparation Information**

| | |
|---|---|
| Company | Aurochemicals<br>7 Nicoll Street<br>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 substance or mixture**

| | |
|---|---|
| GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) | Acute toxicity, Oral (Category 4)<br>Skin irritation (Category 2)<br>Skin sensitization (Category 4) |

**2.2 GHS Label Elements, Including precautionary statements**

Pictogram

Signal Word Warning

Hazard Statement(s)

| | |
|---|---|
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |

Precautionary Statement(s)

| | |
|---|---|
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |
| P330 | Rinse mouth. |

| | |
|---|---|
| P302+P352 | IF ON SKIN (or hair): Rinse with soap and water/ shower. |
| P332+P313 | If skin irritation occurs: 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. |
| 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 | 4,6-Dimethyl-3-hydroxy-2,5-dihydrofuran-2-one/Triacetin Mixture |
| Formula | $C_6H_8O_3$ |
| Molecular Weight | 128.13 g/mol |
| CAS-No | 28664-35-9/102-76-1 |

**Hazardous Components**

| Component | Classification | Concentration |
|---|---|---|
| Triacetin | Acut Tox.; Skin Irrit.; Skin sens.; H302; H315; H317 | ~ 97 % |

## 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 | Provide fresh air; keep at rest and at a comfortable position to breathe |
| Contact with skin: | Remove contaminated clothing. Rinse skin with cool water then wash with mild soap and warm water. |
| Contact with eyes: | Flush eyes with water as a precaution. |
| 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: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide

**5.2 Special hazards arising from the** Nature of decomposition products not known

**substance or mixture**

| | | |
|---|---|---|
| **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** | No data available |

## Section 6: ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| **6.1** | **Personal precautions, protective equipment and emergency procedures** | Avoid breathing vapors, mist or gas |
| **6.2** | **Environment precautions** | Do not allow to enter drains or sewage system. |
| **6.3** | **Methods and materials for containment and clean up** | Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers 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** | 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 have been 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 | Safety glasses. 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 gloves. 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 | Complete suit 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 faced respirator with multi -purpose combination (US) or type ABEK (EN14387) 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 | Do not let product enter drains. |

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties**

| | | |
|---|---|---|
| a | Appearance | Liquid-oily<br>Colorless to pale yellow |
| b | Odor | Slight Fat Odor |
| c | Odor Threshold | No data available |
| d | pH | No data available |
| e | Melting Point /Freezing Point | 3°C |
| f | 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 | Upper Explosion Limit: 7.73% (V)<br>Lower Explosion Limit: 1.05% (V) |
| k | Vapor pressure | 0.0033hPa at 25°C |
| l | Vapor density | 7.53 (Air=1.0) |
| m | Relative density @25°C | 1.154-1.158 |
| n | Solubility | Soluble in alcohol, ether and organic solvents |
| o | Partition coefficient: n-octanol/water | log Pow: 0.25 |
| 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 dangerous reactions known |
| **10.4** | **Conditions to avoid** | No data available |
| **10.5** | **Incompatible materials** | Strong oxidizing agents |
| **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) | >2,000 mg/kg<br>OECD Test Guideline 401 |
| LC50 Inhalation-Rat (male & female) | >1,721 mg/l 4h<br>OECD Test Guideline 403 |
| LD50-Dermal-Rabbit | >2,000 mg/kg |
| Skin corrosion/irritation | Rabbit: No skin irritation – 24 hr<br>OECD Test Guideline 404 |
| Serious eye damage/eye irritation | Rabbit: No eye irritation<br>OECD Test Guideline 405 |
| Respiratory or skin sensitization | No sensitizing effects known |
| Germ Cell mutagenicity | Ames Test<br>S. Typhimurium<br>Results: Negative |

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 | To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated |
| Synergistic effects | No data available |
| RTECS: | AK3675000 |

## Section 12: ECOLOGICAL INFORMATION

**12.1 Toxicity**

**To Fish**: LC50- Semi-Static Test: Oryzias latipes >100 mg/l 96hr
OECD Test Guideline 203
**To Daphnia and other aquatic invertebrates**
EC-50-Semi-Static Test: Daphnia magna (water flea) 380mg/l 48hr
**To Algae:** EC50- Selenastrum capricornutum (green algae) >940 mg/l 72 hr

**To Bacteria**: NOEC- Pseudomonas putida >1,088 mg/l 18hr

| | | |
|---|---|---|
| **12.2** | **Persistence and degradability** | Biodegradability: |
| **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)** | 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 | Triacetin | CAS# 102-76-1 | Rev. Date: |
| New Jersey Right to Know components | 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

**HMIS Rating**

| | |
|---|---|
| Health hazard | 1 |
| 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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