# Safety Data Sheet

The Natural Choice for Flavor and Fragrance Ingredients

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

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

**1.1 Product identifiers**

| | |
|---|---|
| Product Name | **Difurfuryl Sulfide 1% in ETOH, Natural** |
| Product Number | **0323800** |
| CAS-No. | **13678-67-6 / 64-17-5** |

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

**1.3 Preparation Information**

| | |
|---|---|
| Company | Aurochemicals<br>7 Nicoll Street<br>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)*

Flammable Liquid (Category 2), H225
Skin irritation (Category 2), H315
Eye irritation (Category 2A) H319
Specific target organ toxicity (Category 3) H335

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

Pictogram

Signal Statement **DANGER**

Hazard Statement(s)

H225 Highly flammable liquid and vapor
H315 Causes 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 |
| P280 | Wear protective gloves/protective clothing/eye and face protection |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower |
| 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 |
| P405 | Store locked up |
| P501 | Dispose of contents/container to an approved waste disposal plant |
| P261 | Avoid breathing dust/fume.gas/mist/vapors/spray |
| P264 | Wash skin thoroughly after handling |
| P271 | Use only outdoors or in a well-ventilated area |
| P280 | Wear protective gloves/eye protection/face protection |
| 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 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. |
| 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 |

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

## Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

**3.1 Substances** Difurfuryl Sulfide and Ethyl Alcohol (Ethanol Solution)

| | |
|---|---|
| Synonyms | |
| Formula | $C_{10}H_{10}O_2S$ |
| Molecular Weight | 194.25 g/mol |
| CAS-No | 13678-67-6/64-17-5 |
| EC-No. | 237-172-3/200-578-6 |
| Index No. Ethyl Alcohol | 603-002-00-5 |

**Hazardous Components**

| Component | Classification | Concentration |
|---|---|---|
| Ethanol | Flammable Liquid (2) H225 | 99% |

## 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; 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 |

## Section 5: FIREFIGHTING MEASURES

| | | |
|---|---|---|
| **5.1** | **Extinguishing Media**<br>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, sulphur 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: ACCIDENTIAL 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. Avoid breathing dust. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. |
| **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. Use explosion proof equipment. Keep away from sources of ignition – No smoking. Take measures to prevent the buildup of electrostatic charges. |
| 7.2 | **Conditions for Safe storage** | Keep container tightly closed in a dry and well-ventilated place. |

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 |
|---|---|---|---|---|
| Ethyl Alcohol | 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 pp, 1,900 mg/m3 | USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants |
| The value in mg/m3 is approximate | | | | |
| | | TWA | 1,000 pp, 1,900 mg/m3 | USA. NIOSHA Recommended Exposure Limits |

**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 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 conforming to EN 166. 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, 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 exposure 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: 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: Clear, pale yellow to brown liquid

| | | |
|---|---|---|
| b | Odor | Meaty, Powerful sulfur odor |
| c | Odor Threshold | No data available |
| d | pH | No data available |
| e | Melting Point /Freezing Point | No data available |
| f | Boiling Point | 78°C |
| g | Flash Point | 14°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 at 25°C | 0.785-0.825 |
| n | Solubility | Soluble in water and most organic solvents |
| 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** | 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**

| | |
|---|---|
| LD50-Oral | No data available |
| LC50-Inhalation | No data available |
| LD50-Dermal | No data available |
| 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) | 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 | Nausea, Headache, Vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated |
| Synergistic effect | No data available |
| RTECS: | Not available |

## 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 |
| Packaging | According to local regulations |

## Section 14: TRANSPORT INFORMATION

| | |
|---|---|
| **DOT (US)** | NA-Number: 3335 Class: 9 Packing Group: III |
| Proper shipping name: | A Aviation regulated solid, n.o.s. (2'2'-[Thiobis(methylene)}bisfuran) |
| **IMDG** | Not dangerous goods |
| **IATA** | NA-Number: 3335 Class: 9 Packing Group: III |
| Proper shipping name: | A Aviation regulated solid, n.o.s. (2'2'-[Thiobis(methylene)}bisfuran) |

## 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 nod not require a registration or the registration is envisaged for a later registration deadline. |
| 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 | (2'2'-[Thiobis(methylene)]bisfuran) CAS# 13678-67-6 Rev. Date: |
| New Jersey Right to Know components | (2'2'-[Thiobis(methylene)] bisfuran) CAS# 13678-67-6 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 0
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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