



your partner in food safety

Safety Data Sheet

Issue Date: 24-Nov-2017

Revision Date: 11-Dec-2017

Version 1

1. IDENTIFICATION

Product identifier

Product Name Liquik Diactolate

Other means of identification

SDS # BIR-012

Product Code I2033

Recommended use of the chemical and restrictions on use

Recommended Use Neutralizer for use on food products.

Details of the supplier of the safety data sheet

Supplier Address

Birko Corporation
9152 Yosemite Street
Henderson, CO 80640-8027
www.birkocorp.com

Emergency telephone number

Company Phone Number Phone: 303-289-1090 or 1-800-525-0476

Fax: 303-289-1190

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Appearance Colorless liquid

Physical state Liquid

Odor None

Classification

Serious eye damage/eye irritation

Category 2

Signal Word

Warning

Hazard statements

Causes serious eye irritation



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear eye protection/ face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No | Weight-% |
|---------------|---------|----------|
| Citric Acid | 77-92-9 | 50-60 |

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**Description of first aid measures**

| | |
|---------------------|--|
| Eye Contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. |
| Inhalation | Remove to fresh air. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. |

Most important symptoms and effects, both acute and delayed

| | |
|-----------------|--------------------------------|
| Symptoms | Causes serious eye irritation. |
|-----------------|--------------------------------|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Notes to Physician | Treat symptomatically. |
|---------------------------|------------------------|

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

| | |
|-----------------------------|--|
| Personal Precautions | Use personal protective equipment as required. |
|-----------------------------|--|

Environmental precautions**Methods and material for containment and cleaning up**

| | |
|--------------------------------|---|
| Methods for Containment | Prevent further leakage or spillage if safe to do so. |
|--------------------------------|---|

Methods for Clean-Up

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on Safe Handling**

Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|------------------------|-----------|--------------------|------------|
| Citric Acid 77-92-9 | - | 15 mg / m3 (Total) | - |

Appropriate engineering controls**Engineering Controls**

Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection

Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection

Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

| | | | |
|----------------|------------------|----------------|----------------|
| Physical state | Liquid | Odor | None |
| Appearance | Colorless liquid | Odor Threshold | Not determined |
| Color | Colorless | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--|-----------------------|-------------------------|
| pH | 2.4 | |
| Melting point / freezing point | Not determined | |
| Boiling point / boiling range | Not determined | |
| Flash point | Not determined | |
| Evaporation Rate | Not determined | |
| Flammability (Solid, Gas) | Liquid-Not applicable | |
| Flammability Limit in Air | | |
| Upper flammability or explosive limits | Not determined | |
| Lower flammability or explosive limits | Not determined | |
| Vapor Pressure | Not determined | |
| Vapor Density | Not determined | |

| | |
|------------------------------|----------------|
| Relative Density | Not determined |
| Water Solubility | Not determined |
| Solubility in other solvents | Not determined |
| Partition Coefficient | Not determined |
| Autoignition temperature | Not determined |
| Decomposition temperature | Not determined |
| Kinematic viscosity | Not determined |
| Dynamic Viscosity | Not determined |
| Explosive Properties | Not determined |
| Oxidizing Properties | Not determined |

Other information

Liquid Density 1.23

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Do not inhale.

Ingestion Do not ingest.

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-----------------------------|---------------------------------------|-------------|-----------------|
| Citric Acid 77-92-9 | = 3 g/kg (Rat) = 3000 mg/kg (Rat) | - | - |
| Sodium benzoate 532-32-1 | = 4070 mg/kg (Rat) | - | - |

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Serious eye damage/eye irritation**

Causes eye irritation.

Carcinogenicity

Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

Oral LD50 6,000.00 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|-----------------------------|----------------------|--|---|
| Citric Acid 77-92-9 | | 1516: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static | 120: 72 h <i>Daphnia magna</i> mg/L EC50 |
| Sodium benzoate 532-32-1 | | 100: 96 h <i>Pimephales promelas</i> mg/L LC50 static 420 - 558: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through | 650: 48 h <i>Daphnia magna</i> mg/L EC50 |

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

| Chemical name | Partition coefficient |
|------------------------|-----------------------|
| Citric Acid 77-92-9 | -1.72 |

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

| Chemical name | TSCA | DSL/NDSL | EINECS/E LINCS | ENCS | IECSC | KECL | PICCS | AICS |
|-----------------|------|----------|-------------------|------|-------|------|-------|------|
| Citric Acid | X | X | X | X | X | X | X | X |
| Sodium benzoate | X | X | X | X | X | X | X | X |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

| | | | | |
|--------------------|-----------------------|---------------------|-------------------------|----------------------------|
| <u>NFPA</u> | Health Hazards | Flammability | Instability | Special Hazards |
| | 1 | 0 | 0 | - |
| <u>HMIS</u> | Health Hazards | Flammability | Physical hazards | Personal Protection |
| | 1 | 0 | 1 | C |

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Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet