Office (800)862-8620 Fax (517)882-0507

0830 - Bavarian Cream Flavor, Natural/Artificial

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/06/2015 Version: 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : 0830 - Bavarian Cream Flavor, Natural/Artificial

Product form : Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Food industry: component

1.3. Details of the supplier of the safety data sheet

LorAnn Oils, Inc. 4518 Aurelius Road Lansing, MI 48910 Telephone: 1.800.862.8620

1.4. Emergency telephone number

Emergency number : CHEMTREC: Within USA and Canada: 1.800.424.9300 Outside USA and Canada: +1 703 527 3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

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| Name | % | Classification (GHS-US) |
|--------------------------------------|-------------|---|
| Proprietary Flavor Ingredient - P227 | 7.18 - 8.65 | Acute Tox. 4 (Oral), H302 |
| Proprietary Flavor Ingredient - P177 | 3.41 - 4.11 | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 |

^{*}The specific chemical identities of the ingredients in this mixture, as well as, exact concentrations of any hazardous ingredients stated above, are considered trade secrets. This information is withheld in accordance with the provisions of 1910.1200 of the Code of Federal Regulations.

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed

by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness

persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect

spillage. Store away from other materials.

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6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container

closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| 0830 - Bavarian Cream Flavor, Natural/Artificial | |
|--|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

| Proprietary Flavor Ingredient - P177 | | |
|--------------------------------------|----------------|----|
| ACGIH | Not applicable | |
| OSHA | Not applicable | |
| DNEL | DNEL | <= |

| Proprietary Flavor Ingredient - P227 | |
|--------------------------------------|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear eye protection and protective gloves. protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Refer to specification sheet

Odor : characteristic
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available

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Flash point : $> 200 \, ^{\circ}\text{F}$

Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : No data available

Specific gravity / density : 1.049

Solubility : Miscible with water.

Water: N/A

Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Proprietary Flavor Ingredient - P177 | | |
|--------------------------------------|----------------------------|--|
| LD50 oral rat | > 5000 mg/kg (Rat) | |
| LD50 dermal rat | > 5000 mg/kg (Rat) | |
| Proprietary Flavor Ingredient - P227 | | |
| LD50 oral rat | 1590 mg/kg (Rat) | |
| LD50 dermal rabbit | > 7940 mg/kg (Rabbit) | |
| ATE US (oral) | 1590.000 mg/kg body weight | |
| Proprietary Flavor Ingredient - P280 | | |
| LD50 oral rat | 2800 mg/kg (Rat) | |

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| Proprietary Flavor Ingredient - P280 | Proprietary Flavor Ingredient - P280 | | |
|--|--|--|--|
| LD50 dermal rabbit | > 5010 mg/kg (Rabbit) | | |
| ATE US (oral) | 2800.000 mg/kg body weight | | |
| Proprietary Flavor Ingredient - p322 | | | |
| LD50 oral rat | 20000 mg/kg (Rat; Experimental value) | | |
| LD50 dermal rat | 22500 mg/kg (Rat; Experimental value) | | |
| LD50 dermal rabbit | 20800 mg/kg (Rabbit; Experimental value) | | |
| ATE US (oral) | 20000.000 mg/kg body weight | | |
| ATE US (dermal) | 20800.000 mg/kg body weight | | |
| Skin corrosion/irritation | : Not classified | | |
| Serious eye damage/irritation | : Not classified | | |
| Respiratory or skin sensitization | : Not classified | | |
| Germ cell mutagenicity | : Not classified | | |
| Carcinogenicity | : Not classified | | |
| Reproductive toxicity | : Not classified | | |
| Specific target organ toxicity (single exposure) | : Not classified | | |
| Specific target organ toxicity (repeated exposure) | : Not classified | | |

Aspiration hazard : Not classified

Potential Adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

| Proprietary Flavor Ingredient - P227 | |
|--------------------------------------|--------------------------|
| LC50 fish 1 | 87.6 mg/l (96 h; Pisces) |

12.2. Persistence and degradability

| 0830 - Bavarian Cream Flavor, Natural/Artificial | | |
|--|--|--|
| Persistence and degradability | Not established. | |
| Proprietary Flavor Ingredient - P177 | | |
| Persistence and degradability | Biodegradability in water: no data available. | |
| Proprietary Flavor Ingredient - P227 | | |
| Persistence and degradability | Readily biodegradable in water. Forming sediments in water. Photodegradation in the air. | |
| ThOD | 1.81 g O₂/g substance | |
| BOD (% of ThOD) | (5 day(s)) 0.529 | |

12.3. Bioaccumulative potential

| 0830 - Bavarian Cream Flavor, Natural/Artificial | | |
|--|--|--|
| Bioaccumulative potential | Not established. | |
| Proprietary Flavor Ingredient - P177 | | |
| Bioaccumulative potential | No bioaccumulation data available. | |
| Proprietary Flavor Ingredient - P227 | | |
| Log Pow | 1.61 - 1.88 | |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). | |

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Proprietary Flavor Ingredient - P227

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary Flavor Ingredient - P280

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary Flavor Ingredient - p322

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

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15.3. US State regulations

Proprietary Flavor Ingredient - p322

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information

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Full text of H-phrases:

| ext of 11-philases. | |
|---------------------|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Flam. Liq. 3 | Flammable liquids Category 3 |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H226 | Flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |