SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
   Product Name: Butyl Stearate
   Product Codes(s): Butyl Stearate
   Synonyms: Butyl octadecanoate; n-Butyl octadecanoate; n-Butyl stearate; Octadecanoic acid, butyl ester
   REACH Registration Number: No data available

1.2 Relevant identified uses of the substance or mixture and uses advised against
   General Use: For use in industrial and commercial formulation applications
   Uses advised against: None known

1.3 Details of the supplier and of the safety data sheet
   Manufacturer/Distributor
   Allan Chemical Corporation
   235 Margaret King Avenue
   Ringwood, NJ 07456 USA
   +1-973-962-4014

1.4 Emergency telephone number
   Chem Tel
   1-813-248-0585
   +1-800-255-3924

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture
   Product definition: Substance
   Classification (Regulation (EC) No 1272/2008)
   Not classified as dangerous

2.2 Label Elements
   Labeling (Regulation (EC) No 1272/2008)
   Not classified as dangerous in accordance with EC directives or respective national laws.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>% by Weight</th>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Index Number</th>
<th>EC Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;98</td>
<td>Butyl Stearate</td>
<td>123-95-5</td>
<td>204-666-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

3.2 Mixtures
   Chemical characterization (preparation)
   Not applicable

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures
   Inhalation: If exposure to product mist causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight fitting clothing such as a collar, tie, belt or waistband. If symptoms persist, seek medical attention.
   Eyes: Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. If irritation persists seek medical attention, preferably from an ophthalmologist.
   Skin: Flush skin with water while removing contaminated clothing. Wash affected area with soap and water followed by thorough rinsing. Wash contaminated clothing and shoes thoroughly before reuse. If irritation occurs or persists, seek medical attention.
   Ingestion: Rinse mouth thoroughly with water if the victim is conscious. Remove dentures, if present. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Obtain medical attention If a large amount is swallowed.

4.2 Most important symptoms and effects, both acute and delayed
   Potential health symptoms and effects
   Eyes: Causes eye irritation.
   Skin: Causes skin irritation with localized redness and itching.
   Inhalation: May cause irritation of the respiratory tract. Considered a low hazard during normal industrial handling due to its low vapor pressure.
SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishable media
Suitable methods of extinction: Use extinguishing media such as water fog, water spray, carbon dioxide, dry chemical and foam.

5.2 Special hazards arising from the substance or mixture
May be combustible at high temperatures. Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: Not considered to be explosion hazard.

5.3 Advice for firefighters
Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If possible, water contaminated by this material should be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear all appropriate protective equipment designated in Section 8. Remove all sources of ignition. Ventilate the area. Spills create a slip hazard.

6.2 Environmental precautions
Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up
Cover drains and contain spill. Cover with a large quantity of inert absorbent. Do not use combustible material such as saw dust. Shovel or sweep up product and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Dispose of in accordance with federal, state and local regulations.

6.4 Reference to other sections
See Section 13 for additional waste treatment information.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling
Wear all appropriate personal protective equipment specified in Section 8. Do not get in eyes or on skin or clothing. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing and shoes before reuse.

Advice on protection against fire and explosion
Material does not present a fire or explosion hazard.

7.2 Conditions for safe storage, including any incompatibilities
Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10.5), food and drink. Store away from direct sunlight or ultraviolet light. Transfer only to approved containers having correct labeling. Keep container tightly closed. Protect containers against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers may be hazardous when empty as they contain product residues. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

7.3 Specific end uses
Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Contains no substances with occupational exposure values.

8.2 Exposure controls
Engineering Measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1 for additional data.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

Eye/face protection: Wear protective goggles or safety glasses with non-perforated side shields and a face shield. Refer to 29 CFR 1910.133, ANSI Z87.4 or Standard EN 166.

Hand Protection: Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of gloves must be greater than the intended use period.

Ingestion: May cause digestive upset with nausea, vomiting and diarrhea.

Chronic: Prolonged or repeated skin contact may cause irritation.

4.3 Indication of any immediate medical attention and special treatment needed
Advice to Doctor and Hospital Personnel: Treat symptomatically and supportively.
Other protective equipment: Protective clothing, if the situation requires.
Respiratory Protection: None required with normal use. Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties
- **Appearance**: Clear, colorless to pale yellow liquid
- **Odor**: Faint, fatty
- **Odor Threshold**: No data available
- **Molecular Weight**: 340.58
- **Chemical Formula**: C22H44O2
- **pH**: No data available
- **Freezing/Melting Point, Range**: 27 °C (80.6 °F)
- **Initial Boiling Point**: 343 °C (649.4 °F)
- **Evaporation Rate**: Not applicable
- **flammability (solid, gas)**: Not applicable
- **Flash Point**: 160 °C (320 °F), closed cup; 196 °C (384.8 °F), open cup
- **Autoignition Temperature**: 355 °C (671 °F)
- **Decomposition Temperature**: No data available
- **Lower Explosive Limit (LEL)**: No data available
- **Upper Explosive Limit (UEL)**: No data available
- **Vapor Pressure**: 0 kPa @ 20 °C
- **Vapor Density**: 11.4 (Air = 1)
- **Specific Gravity**: 0.854 - 0.875
- **Viscosity**: No data available
- **Solubility in Water**: Negligible (0.29% @ 25 °C)
- **Partition Coefficient: n-octanol/water**: log Pow = 9.07 (predicted)
- **Volatile by Volume @ 70 ºF**: No data available

9.2 Other data
- No data available

**SECTION 10 - STABILITY AND REACTIVITY**

10.1 Reactivity
No specific test data related to reactivity is available for this product.

10.2 Chemical stability
This product is stable under recommended storage conditions, handling and use.

10.3 Possibility of hazardous reactions
None known
Hazardous polymerization does not occur.

10.4 Conditions to avoid
High temperatures; incompatible materials

10.5 Incompatible materials
Strong oxidizing agents, alkalies

10.6 Hazardous decomposition products
Thermal decomposition products include oxides of carbon.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects
- **Acute Oral Toxicity**: LD50, rat: 32 g/kg
- **Acute inhalation toxicity**: No data available
- **Acute dermal toxicity**: No data available
- **Skin irritation/corrosion**: Causes skin irritation
- **Eye irritation/corrosion**: Causes eye irritation
- **Sensitization**: No data available
- **Genotoxicity in vitro**: No data available
Mutagenicity
No data available

Specific organ toxicity - single exposure
No data available

Specific organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

11.2 Further information
Butyl Stearate: ACGIH A4 carcinogen - Not classifiable as a human or animal carcinogen. Not listed as a carcinogen by IARC, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this material in humans, nor is there available data that indicated that it causes adverse developmental or fertility effects in humans.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity
No data available

12.2 Persistence and degradability
Expected to be biodegradable.

12.3 Bioaccumulation potential
Not expected to bioaccumulate

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other adverse effects

Additional ecological information
Do not allow material to run into surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Disposal of surplus and non-recyclable product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements. Avoid dispersal of spilt material or runoff and contact with soil, waterways, drains and sewers.

Hazardous waste: This material is not a hazardous waste under RCRA 40 CFR 261.

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

NOT REGULATED FOR TRANSPORT

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

U. S. Federal Regulations
OSHA Hazard Communication Standard: This material is not classified as highly hazardous in accordance with OSHA 29 CRF 1910.1200.
EPA Federal Insecticide, Fungicide and Rodenticide Act: Butyl Stearate (CAS #557-95-5) is a registered Pesticide under the FIFRA, 40 CFR Part 150.
TSCA Status: All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory. This product is not subject to TSCA 12(b) Export Notification.
Superfund Amendments and Reauthorization Act (SARA)
SARA 313 Information: None of the chemicals in this product are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.
SARA Section 311/312 Hazard Categories: None
SARA 302/304 Extremely Hazardous Substance: None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.
SARA 302/304 Emergency Planning & Notification: None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.
Comprehensive Response Compensation and Liability Act (CERCLA): This product contains no CERCLA reportable substances.

Clean Air Act (CAA)
This product does not contain any substances that listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).
This product does not contain any Class 1 Ozone depleters.
This product does not contain any Class 2 Ozone depleters.

Clean Water Act (CWA)
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:
This product contains no chemical(s) known to the State of California to cause cancer or other reproductive harm.

Other U.S. State Inventories:
This material is not listed on any State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists.

Canada

WHMIS Hazard Symbol and Classification: None allocated

Canadian Controlled Products Regulations (CPR): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations, and the MSDS contains all the information required by the Controlled Products Regulations.

Canadian Ingredient Disclosure List (IDL): None of the substances in this product are listed on the IDL.

Canadian National Pollutant Release Inventory (NPRI): None of the substances in this product are listed on the NPRI.

European Economic Community

Labeling (67/548/EEC or 1999/45/EC)
This product does not need to be labeled in accordance with EC directives or respective national laws.

WGK, Germany (Water danger/protection): 1

Global Chemical Inventory Lists

<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory Name</th>
<th>Inventory Listing*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substance List (DSL).</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substance List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>Inventory of New and Existing Chemicals (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States</td>
<td>Toxic Substance Control Act (TSCA)</td>
<td>Yes</td>
</tr>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
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</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory of Chemicals (NZIoC)</td>
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<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
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</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**“Yes” indicates that all components of this product are in compliance with the inventory requirements administered by the governing country.
“No” indicates that one or more components of this product are not on the inventory and are not exempt from listing.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

| Health | 1 |
| Flammability | 1 |
| Physical Hazard | 0 |
| Personal Protection | 8 |

HMIS & NFPA Hazard Rating Legend

| * = Chronic Health Hazard | 2 = MODERATE |
| 0 = INSIGNIFICANT | 3 = HIGH |
| 1 = SLIGHT | 4 = EXTREME |

National Fire Protection Association (NFPA)

| Flammability |
| Health | 1 |
| Instability | Special |

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