


SAFETY DATA SHEET

1. IDENTIFICATION

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|----------------------------|---|
| 1.1. Product Name | Stemolecule™ Sodium Butyrate |
| 1.2. Catalog Number | 04-0005 |
| 1.3. Uses and restrictions | For research use only. Not for use in diagnostic or therapeutic applications |
| 1.4. Manufacturer/Supplier | Stemgent®, Inc.
4 Hartwell Place.
Lexington, MA 02421 USA
(617) 245-0000 |
| 1.5. In Case of Emergency | <ul style="list-style-type: none"> • For medical emergencies, contact your local emergency center. • For transportation emergencies, contact your local transportation authorities. • For other non-medical or environmental emergencies please call (617) 245-0030, 8:00 am-4:00 pm EST, Monday – Friday. |

2. HAZARDS IDENTIFICATION

- | | |
|---------------------------------|---|
| 2.1. Classification | <p>GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)</p> <ul style="list-style-type: none"> • Skin irritation (Category 2), H315 • Eye irritation (Category 2A), H319 • Germ cell mutagenicity (Category 2), H341 • Specific target organ toxicity – single exposure (Category 3), respiratory system, H335 |
| 2.2. Signal Word | Warning. |
| 2.3. Symbol |  |
| 2.4. Hazard Statement(s) | <ul style="list-style-type: none"> • H315 Causes skin irritation. • H319 Causes serious eye irritation. • H335 May cause respiratory irritation. • H341 Suspected of causing genetic defects. |
| 2.5. Precautionary Statement(s) | <ul style="list-style-type: none"> • P201 Obtain special instructions before use. • P202 Do not handle until all safety precautions have been read and understood. • P261 Avoid breathing dust/fume/gas/mist/vapours/spray. • P264 Wash skin thoroughly after handling. • P271 Use only outdoors or in a well-ventilated area. • P280 Wear protective gloves/protective clothing/eye protection/face protection. • P302 + P352 IF ON SKIN: Wash with plenty of soap and water. • P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. |

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| <ul style="list-style-type: none"> • P305 + P351 + P338 • P308 + P313 • P332+P313 • P337 + P313 • P362 • P403 + P233 • P405 • P501 | <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>IF exposed or concerned: Get medical advice/attention.</p> <p>If skin irritation occurs: Get medical advice/attention.</p> <p>If eye irritation persists: Get medical advice/attention.</p> <p>Take off contaminated clothing and wash before reuse.</p> <p>Store in a well-ventilated place. Keep container tightly closed.</p> <p>Store locked up.</p> <p>Disposes of contents/container to an approved waste disposal plant.</p> |
| <p>2.6. Hazards not otherwise classified (HNOC) or not covered by GHS</p> | <p>None.</p> |

3. COMPOSITION/INFORMATION ON INGREDIENTS

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|---|---|
| <p>3.1. Chemical Name</p> <p>3.2. Synonyms</p> <p>3.3. Chemical Formula</p> <p>3.4. Molecular Weight</p> <p>3.5. CAS Number</p> | <p>Stemolecule™ Sodium Butyrate</p> <p>Sodium Butyrate</p> <p>C₄H₇NaO₂</p> <p>110.09 g/mol</p> <p>156-54-7</p> |
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4. FIRST AID MEASURES

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| <p>4.1. First Aid Instructions</p> <ul style="list-style-type: none"> • General Advice • Eyes • Skin • Ingestion • Inhalation • Puncture Wounds <p>4.2. Most Important Symptoms/effects, acute and immediate</p> <p>4.3. Indications of immediate medical attention and special treatment needed</p> | <p>Move out of exposure area. Consult a physician.</p> <p>Check for and remove contact lenses. In case of contact, immediately flush thoroughly with water for at least 15 minutes. Call a physician.</p> <p>In case of contact, immediately flush skin with copious amounts of water. Remove contaminated clothing and shoes and wash before use. Contact a physician.</p> <p>If swallowed, wash mouth out with water provided person is conscious. Do not induce vomiting. Loosen tight clothing. Contact a physician.</p> <p>If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, call a physician.</p> <p>Wash thoroughly with soap and water. Allow wound to bleed freely. Contact a physician.</p> <p>Described in section 2.</p> <p>No data available.</p> |
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5. FIRE FIGHTING MEASURES

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| 5.1. Suitable extinguishing media. | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| 5.2. Specific hazards arising from the chemical | Carbon Dioxides, Sodium oxides. |
| 5.3. Special protective equipment and precautions for fire-fighters | Wear self contained breathing apparatus for firefighting if necessary. |

6. ACCIDENTAL RELEASE MEASURES

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| 6.1. Personal precautions, protective equipment, and emergency procedures | Use personal protective equipment (see section 8). Avoid direct contact with skin or eyes and prevent inhalation of dust. |
| 6.2. Environmental Precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| 6.3. Methods and materials for containment and clean up | Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete. |

7. HANDLING AND STORAGE

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| 7.1. Precautions for safe handling | <ul style="list-style-type: none"> • Avoid inhalation, contact with eyes, skin, and clothing. • Avoid prolonged or repeated exposure. • Provide appropriate exhaust ventilation at places where dust is formed. • For other precautions see section 2.5. |
| 7.2. Conditions for safe storage, including any incompatibilities | Keep tightly closed. Store at 4°C protected from light. Following reconstitution, store aliquots at -20°C. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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| 8.1. Control Parameters | No known occupational exposure limits values. |
| 8.2. Appropriate engineering controls | Safety shower and eye bath. Mechanical exhaust required. |
| 8.3. Protection measures and Personal Protective Equipment | Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. |
| <ul style="list-style-type: none"> • Respiratory Protection | Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. |
| <ul style="list-style-type: none"> • Eye Protection | Chemical safety goggles. |
| <ul style="list-style-type: none"> • Skin Protection | Protective gloves and lab coat. |



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9. PHYSICAL/CHEMICAL PROPERTIES

9.1. Appearance	White solid.
9.2. Odor	Unpleasant
9.3. Odor Threshold	No data available.
9.4. pH	No data available.
9.5. Melting point/freezing point	Melting point/range: 250 - 253°C (482 – 487 °F)
9.6. Initial boiling point and boiling range	No data available.
9.7. Flash point	No data available.
9.8. Evaporation rate	No data available.
9.9. Flammability (solid, gas);	No data available.
9.10. Upper/lower flammability or explosive limits	No data available.
9.11. Vapor pressure	No data available.
9.12. Vapor density	No data available.
9.13. Relative density	No data available.
9.14. Solubility(ies)	100 mM in water, 90 mM in Dimethylsulfoxide.
9.15. Partition coefficient: n-octanol/water	No data available.
9.16. Auto-ignition temperature	No data available.
9.17. Decomposition temperature	No data available.
9.18. Viscosity	No data available.
9.19. Explosive properties	No data available.
9.20. Oxidizing properties	No data available.

10. STABILITY/REACTIVITY

10.1. Reactivity	No data available.
10.2. Chemical Stability	This product is stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	No data available.
10.4. Conditions to Avoid	Hygroscopic; keep container tightly closed.
10.5. Incompatible materials	Strong oxidizing agents.
10.6. Hazardous decomposition products	Carbon monoxide, carbon dioxide, and sodium oxides.

11. TOXICOLOGICAL INFORMATION

11.1. Toxicological effects	No data available.
• Acute toxicity	No data available.
• Skin corrosion/irritation	No data available.



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• Serious eye damage/eye irritation	No data available.
• Respiratory or skin sensitization	No data available.
• Germ cell mutagenicity	In vitro tests show mutagenic effects.
• Carcinogenicity	<ul style="list-style-type: none"> • IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen. • ACGIH: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen. • NTP: No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen. • OSHA: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
• Reproductive Toxicity	No data available.
• Specific target organ toxicity - single exposure	No data available.
• Specific target organ toxicity - repeated exposure	Inhalation – may cause respiratory irritation.
• Aspiration hazard	No data available.
11.2. Symptoms related to the physical, chemical and toxicological characteristics	<ul style="list-style-type: none"> • Signs and Symptoms of Exposure: Cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. • Liver – Irregularities – Based on Human Evidence
11.3. Effects of Short-Term Exposure	No data available.
11.4. Effects of Long-Term Exposure	No data available.
11.5. Numerical measures of toxicity	No data available.
11.6. Other Information	None.

12. ECOLOGICAL INFORMATION

12.1. Toxicity	LC50 – <i>Lepomis macrochirus</i> – 5,000 mg/l – 24h
• Toxicity to fish	EC50 – <i>Daphnia magna</i> (Water flea) – 1950 mg/l – 24h
• Toxicity to daphnia and other aquatic invertebrates	
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	No data available.



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12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No data available.
12.6. Other adverse effects	No data available.

13. DISPOSAL CONSIDERATIONS

13.1. Disposal Method	Waste must be disposed of in accordance with federal, state, and local environmental control regulations.
13.2. Personal safety	Refer to section 8.

14. TRANSPORT INFORMATION

This product is considered non-hazardous for transport.

15. REGULATORY INFORMATION

U.S. Federal Regulations

• SARA 313 components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels.
• SARA 302 components	Does not contain any components subject to reporting.
• SARA 311/312 Hazards	Acute health hazard, Chronic Health Hazard
• Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see CFR 61)	Does not contain any components subject to reporting.

U.S. State Regulations

• California Proposition 65	Does not contain any components subject to reporting.
• Massachusetts Right To Know Components	Does not contain any components subject to reporting.
• Pennsylvania Right To Know Components	Does not contain any components subject to reporting.
• New Jersey Right To Know Components	Does not contain any components subject to reporting.

WHMIS Hazard Class Not controlled under WHMIS (Canada).

16. OTHER INFORMATION

Notice The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Stemgent, Inc. shall not be held liable for any damage resulting from handling or from contact with the product. See Stemgent, Inc. website for terms and conditions of sale.

Preparation Date February 19, 2016



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Version No.
Prepared by

1.2
Quality Control

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