Material Safety Data Sheet
N-Acetylneuraminic Acid Methyl Ester

Section 1 – Chemical Product and Company Identification

Name: *N*-Acetylneuraminic acid methyl ester
Catalog Numbers: LB-0103
Other Synonyms: Sialic acid methyl ester; methyl 5-acetamido-3,5-dideoxy-*D*-glycero-*D*-galacto-2-nonulopyranosonate
Company Identification:

LHE Bioscience, Inc.
11 Deerpark Dr., Suite 206-A
Monmouth Junction, NJ 08852

For information, call: 201-456-9019

Section 2 – Composition, Information on Ingredients

CAS#: 22900-11-4 / 50998-13-5
Chemical name: *N*-Acetylneuraminic acid methyl ester
Purity: ≥98%

Section 3 – Hazard Identification

Emergency Overview
Appearance: White crystalline solid.
Caution! The toxicological properties of this material have not been fully investigated.
Target Organs: Not reported.

Potential Health Effects
Eye: No information is found.
Skin: No information is found.
Ingestion: No information is found.
Inhalation: No information is found.
Chronic: No information is found.

Section 4 – First Aid Measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice if you feel unwell.
Skin: Remove immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs, get medical attention.
Eye: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical attention.
Ingestion: Get medical attention if you feel unwell. Rinse mouth.

Notes to Physicians: Treat symptomatically.

Section 5 – Fire Extinguishing Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.
Flash Point: Not available
Autoignition Temperature: Not available.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: Not published.

Section 6 – Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal.

Section 7 – Handling and Storage

Handling: Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Use with adequate ventilation.
Storage: Store below 4°C/39°F.

Section 8 – Exposure Control and Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering measures to control airborne levels.
Exposure Limits
ACGIH, NIOSH, and OSHA: None listed.

Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves and clothing to prevent skin exposure.
Clothing: Wear appropriate protective clothing to minimize contact with skin.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 – Physical and Chemical Properties

Physical State and Appearance: White crystalline solid
Odor: None reported
pH: Not available.
Vapor Pressure: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Melting Point: 194°C
Decomposition Temperature: Not available.
Solubility: Soluble in water, methanol, ethanol, and isopropanol. Insoluble in ethyl acetate, dichloromethane, and hexane.
Specific Gravity/Density: Not available.
Molecular Formula: $C_{12}H_{21}NO_9$
Molecular Weight: 323.30

Section 10 – Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, strong oxidants.
Incompatibilities with Other Materials: Not available.

Section 11 – Toxicological Information

RTECS#: Substance not listed.
LD50/LC50: Not available.
Carcinogenicity: Substance not listed by ACGIH, IARC, NTP, or CA Prop 65.
Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Mutagenicity: No information available.
Neurotoxicity: No information available.

Section 12 – Ecological Information

No information available.

Section 13 – Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 – Transportation Information

United States: Substance is not regulated as a hazardous material

Section 15 – Regulatory Information

Section 355 (extremely hazardous substances): Substance is not listed.
Section 313 (Specific toxic chemical listings): Substance is not listed.
TSCA (Toxic Substances Control Act): Substance is not listed.
Hazardous Air Pollutants: Substance is not listed.
Proposition 65 · Chemicals known to cause cancer: Substance is not listed.
Chemicals known to cause reproductive toxicity for females: Substance is not listed.
Chemicals known to cause reproductive toxicity for males: Substance is not listed.
Chemicals known to cause developmental toxicity: Substance is not listed.
Carcinogenic categories, EPA (Environmental Protection Agency): Substance is not listed.
TLV (Threshold Limit Value established by ACGIH): Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health): Substance is not listed.
GHS label elements: None listed.
Hazard pictograms: None listed.
Signal word: None listed.
Hazard statements: None listed.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

Section 16 – Additional Information

MSDS Revision Date: 04/28/2021
The above information is believed to be accurate and represents the best information currently available to us. Any additional data once becomes available will be added to the MSDS.