TECHNICAL DATA SHEET
LITTLE FALLS PLANT – MN/US
VERSION 1.0
09/05/2025

Generic Name: ISOSTEARIC ACID

CAS Number: 2724-58-5

EINECS Number: 220-336-3

SPECIFICATION:

ANALYSYS	UNIT	RANGE
Acid value	mg KOH/g	190 - 200
Iodine index	g/100g	1 - 8
Saponification value	mg KOH/g	190 - 210
Color Gardner	-	1 - 5
Appearance at 25o C	Visual	Liquid Clear

PRODUCT DESCRIPTION/APPLICATION

NUOL Isostearic Acid is a branched-chain fatty acid with the chemical formula C18H36O2. It is typically derived from natural vegetable oils, such as palm oil, through a process of hydrogenation and isomerization. NUOL Isostearic Acid appears as a colorless to pale yellow, viscous liquid at room temperature with a mild, slightly fatty odor. Due to its branched structure, it differs from the linear stearic acid (C18H36O2) and offers unique properties that make it highly valuable for a variety of industrial applications.

It is known for its low melting point, high stability, and resistance to oxidation, which make it particularly useful in the formulation of products that require consistent performance and long shelf life.

NUOL Isostearic Acid is widely used in personal care products for its emollient, thickening, and stabilizing properties. It helps to improve the texture and spreadability of creams, lotions, and other skin care formulations. NUOL Isostearic Acid is often included in products like moisturizers, sunscreens, and deodorants, where it works to provide a smooth, non-greasy feel and enhance product stability, especially in emulsions.

It is an important component in the manufacture of industrial lubricants, greases, and coatings. Its low melting point and high stability make it effective in applications that require smooth application, water resistance, and long-lasting performance. It is also used in the production of rust inhibitors, corrosion-resistant coatings, and additives in cutting fluids.

In the food sector, NUOL Isostearic Acid serves as an emulsifier and stabilizing agent, improving the texture, stability, and shelf life of food products. It is used in processed foods, margarine, and food coatings, where it helps maintain a uniform consistency and prevents separation. Additionally, it is considered safe for use in food products as it is derived from natural sources.

NUOL Isostearic Acid is utilized in pharmaceutical formulations, where it functions as an excipient and emulsifier in creams, ointments, and lotions. It aids in the delivery of active ingredients, enhancing the texture and application properties of topical treatments.

NUOL Isostearic Acid is a versatile fatty acid with a wide range of applications across industries such as cosmetics, personal care, food, pharmaceuticals, and industrial manufacturing. Its unique structure, which provides stability, low melting point, and excellent emulsifying properties, makes it an ideal ingredient in many formulations, enhancing product performance, texture, and shelf life. Whether used in skin care products, lubricants, or food additives, NUOL Isostearic Acid continues to be a valuable and effective component in modern product development.

HANDLING PRECAUTIONS:

When handling NUOL Isostearic Acid, it is important to follow safety protocols to minimize exposure and risks. Always wear appropriate personal protective equipment (PPE), including gloves, goggles, and protective clothing, to prevent skin and eye contact. Ensure proper ventilation in the workspace to avoid inhaling vapors or dust. Store NUOL Isostearic Acid in a cool, dry, well-ventilated area, away from heat sources and incompatible materials, such as strong oxidizers. In case of spills, use an inert absorbent material to contain and clean up the substance, and dispose of it according to local environmental regulations. If skin or eye contact occurs, wash affected areas thoroughly with water and seek medical attention if necessary. Always refer to the Safety Data Sheet (SDS) for detailed handling, storage, and emergency procedures.

Keep away from sources of ignition. This material is noncorrosive, and has no toxicity associated with it due to its high flash point.

Keep away from possible contact with incompatible substances.

SHIPPING CLASSIFICATION

NUOL Isostearic Acid is generally classified as a non-hazardous material for shipping. It is not considered a dangerous good under the United Nations (UN) classification system. However, it must still be handled and transported according to standard chemical shipping regulations to ensure safety. The substance should be securely packaged in appropriate containers to prevent leaks or spills during transport. Proper labeling and documentation, including the Safety Data Sheet (SDS), should accompany shipments. Always consult local and international transportation regulations, such as those from the International Maritime Dangerous Goods (IMDG) Code or U.S. Department of Transportation (DOT), to confirm specific requirements for shipping NUOL Isostearic Acid.

Not regulated for transport. Not classified in RID/ADR - ADNR - IMDG - ICAO/IATA - DGR

REGULATORY STATUS

The components of this material are listed on the U.S. TSCA Inventory and the Canadian Domestic Substance List.

NUOL Isostearic Acid is regulated differently depending on its intended use and jurisdiction. In the United States, it is generally considered safe for use in industrial, cosmetic, and personal care products, provided it meets FDA regulations for such applications. It is not classified as a hazardous substance under most regulatory frameworks. In the European Union, NUOL Isostearic Acid is also approved for use in cosmetics and personal care products, subject to compliance with the EU Cosmetics Regulation. For industrial uses, it may be subject to REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals) requirements in the EU or the U.S. Toxic Substances Control Act (TSCA). It is important to consult the relevant Safety Data Sheet (SDS) and regulatory authorities to ensure compliance with all applicable safety and usage standards.

DELIVERY FORM

Liquid in road tanker, rail tank wagon, ISO-container, flex tank, IBC-container or 188 kgs net in steel drums.