

**STEARIC ACID – PALM FREE – SAFETY DATA SHEET**
**SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING**
**PRODUCT IDENTIFIER**

Product name (as labelled)	STEARIC ACID – PALM FREE
Chemical Name	Stearine, fatty acids C16-18
Synonyms	C3H5(C18H35O2)3; C3H5(C16H33O2)3; Emersol 132, 150, 6320; Emersol Stearic Acid 120, 134, 140, 150; NAA 171; Pamak WCFA; Prifac 2980; Pristerene 4911; glycerol tristearate; tristearin; stearic acid, esters with glycerol; stearin stearine; stearic glyceride; octadecanoic acid, esters with 1,2,3-propanetriol with; hexadecanoic acid, ester with 1,2,3-propanetriol; stearic- palmitic acid mixture
Chemical formula	C16-18-Alkylcarboxylicacid
CAS number	67701-03-5
Relevant identified uses	Major component of animal fats and minor component of vegetable oils. Used as an emulsifying agent for margarine, oils, waxes and solvents; as a food additive; as an opacifier, detackifier and a resin lubricant. In pharmaceutical dispensing for cosmetic use.

**DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET**

Registered distributor company name	Pure Ingredients Ltd
Address	626A Rosebank Road, Avondale 1026
Telephone	+649 8135619
Website	www.pureingredients.co.nz
Email	compliance@pureingredients.co.nz

**EMERGENCY TELEPHONE NUMBER**

Association / Organisation	0800 CHEMCALL / 800 243 622 (24hr)
Emergency telephone numbers	111
Other emergency telephone numbers	0800 764 766

**SECTION 2 HAZARDS IDENTIFICATION**
**HSNO Hazard Classification:**

Hazardous Nature: This product is not classified as non-hazardous under HSNO criteria

**Pictogram:** Not applicable

**Signal Word:** Not applicable

**HAZARD STATEMENT:**

H401 Toxic to aquatic life.

**PREVENTION:**

P104 Read Safety Data Sheet before use.

**RESPONSE:**

Nil

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

Name	CAS No.	% by weight
STEARINE FATTY ACIDS C16-C18	67701-03-5	≥98
STEARIC ACID	57-11-4	
PALMATIC ACID	57-10-3	

**SECTION 4 FIRST AID MEASURES**

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

For THERMAL burns:

- Do NOT remove contact lens
- Lay victim down, on stretcher if available and pad BOTH eyes, make sure dressing does not press on the injured eye by placing thick pads under dressing, above and below the eye.
- Seek urgent medical assistance, or transport to hospital.

Eye Contact

## SAFETY DATA SHEET

## SECTION 4 FIRST AID MEASURES

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>• Immediately remove all contaminated clothing, including footwear.</li> <li>• Flush skin and hair with running water (and soap if available).</li> <li>• Seek medical attention in event of irritation.</li> </ul> <p>In case of burns:</p> <ul style="list-style-type: none"> <li>• Immediately apply cold water to burn either by immersion or wrapping with saturated clean cloth.</li> <li>• DO NOT remove or cut away clothing over burnt areas. DO NOT pull away clothing which has adhered to the skin as this can cause further injury.</li> <li>• DO NOT break blister or remove solidified material.</li> <li>• Quickly cover wound with dressing or clean cloth to help prevent infection and to ease pain.</li> <li>• For large burns, sheets, towels or pillow slips are ideal; leave holes for eyes, nose and mouth.</li> <li>• DO NOT apply ointments, oils, butter, etc. to a burn under any circumstances.</li> <li>• Water may be given in small quantities if the person is conscious.</li> <li>• Alcohol is not to be given under any circumstances.</li> <li>• Reassure. Treat for shock by keeping the person warm and in a lying position.</li> <li>• Seek medical aid and advise medical personnel in advance of the cause and extent of the injury and the estimated time of arrival of the patient.</li> </ul>
	Inhalation
Ingestion	<ul style="list-style-type: none"> <li>• If swallowed do NOT induce vomiting.</li> <li>• If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>• Observe the patient carefully.</li> <li>• Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>• Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>• Seek medical advice.</li> </ul>

Indication of any immediate medical attention and special treatment needed  
Treat symptomatically.

## SECTION 5 FIREFIGHTING MEASURES

Extinguishing media	<ul style="list-style-type: none"> <li>• Do NOT direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire.</li> <li>• Foam.</li> <li>• Dry chemical powder.</li> <li>• BCF (where regulations permit).</li> <li>• Carbon dioxide.</li> </ul>
Fire Incompatibility Advice for firefighters	<p>Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</p> <ul style="list-style-type: none"> <li>• Alert Fire Brigade and tell them location and nature of hazard.</li> <li>• Wear breathing apparatus plus protective gloves.</li> <li>• Prevent, by any means available, spillage from entering drains or water courses.</li> <li>• Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>
<i>Fire/Explosion Hazard</i>	<ul style="list-style-type: none"> <li>• Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.</li> <li>• Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).</li> <li>• Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.</li> <li>• Combustion products include: <ul style="list-style-type: none"> <li>◦ carbon monoxide (CO)</li> <li>◦ carbon dioxide (CO<sub>2</sub>)</li> <li>◦ acrolein</li> <li>◦ other pyrolysis products typical of burning organic material.</li> </ul> </li> <li>• May emit poisonous fumes.</li> <li>• May emit corrosive fumes.</li> <li>• CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns.</li> <li>• Foaming may cause overflow of containers and may result in possible fire.</li> </ul>

## SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8.
Environmental precautions	See section 12.

Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> <li>• Remove all ignition sources.</li> <li>• Clean up all spills immediately.</li> <li>• Avoid contact with skin and eyes.</li> <li>• Control personal contact with the substance, by using protective equipment.</li> </ul>
Major Spills	<p>Moderate hazard.</p> <ul style="list-style-type: none"> <li>• CAUTION: Advise personnel in area.</li> <li>• Alert Emergency Services and tell them location and nature of hazard.</li> <li>• Control personal contact by wearing protective clothing.</li> </ul>

## SAFETY DATA SHEET

## SECTION 7 HANDLING AND STORAGE

## Safe handling

- The greatest potential for injury caused by molten materials occurs during purging of machinery (moulders, extruders etc.)
- It is essential that workers in the immediate area of the machinery wear eye and skin protection (such as full face, safety glasses, heat resistant gloves, overalls and safety boots) as protection from thermal burns.
- Fumes or vapours emitted from hot melted materials, during converting operations, may condense on overhead metal surfaces or exhaust ducts. The condensate may contain substances which are irritating or toxic. Avoid contact of that material with the skin.

Rags wet / soaked with unsaturated hydrocarbons / drying oils may auto-oxidise; generate heat and, in-time, smoulder and ignite. This is especially the case where oil-soaked materials are folded, bunched, compressed, or piled together - this allows the heat to accumulate or even accelerate the reaction.

Oily cleaning rags should be collected regularly and immersed in water, or spread to dry in safe-place away from direct sunlight or stored, immersed, in solvents in suitably closed containers.

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions)
- Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.
- Establish good housekeeping practices.
- Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.
- Materials soaked with plant/ vegetable derived (and rarely, animal) oils may undergo spontaneous combustion
- Many vegetable and animal oils absorb oxygen from the air to form oxidation products. This oxidation process produces heat and the resultant increase in temperature accelerates the oxidation process.
- Drying oils such as linseed, tung, poppy and sunflower oils and semi-drying oils such as soya bean, tall oil, corn, cotton and castor oils all absorb oxygen readily and thus experience the self-heating process.
- Cotton fibres are readily ignited and if contaminated with an oxidisable oil, may ignite unless heat can be dissipated
- Avoid reaction with oxidising agents

## Other information

## Suitable container

## Storage Incompatibility

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## Appropriate engineering controls

For molten materials:

Provide mechanical ventilation; in general such ventilation should be provided at compounding/ converting areas and at fabricating/ filling work stations where the material is heated. Local exhaust ventilation should be used over and in the vicinity of machinery involved in handling the molten material.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

## Personal protection

## Eye and face protection

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

## Skin protection

## Hands/feet protection

See Hand protection below

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care.

- When handling hot materials wear heat resistant, elbow length gloves.
- Rubber gloves are not recommended when handling hot objects, materials
- Protective gloves e.g. Leather gloves or gloves with Leather facing

Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.

- polychloroprene.
- nitrile rubber.
- butyl rubber.

## Body protection

## Other protection

See Other protection below

When handling hot or molten liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.

Usually handled as molten liquid which requires worker thermal protection and increases hazard of vapour exposure.

CAUTION: Vapours may be irritating.

Overalls.

P.V.C. apron.

Barrier cream.

## SAFETY DATA SHEET

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White or cream coloured, waxy solid beads or flakes. Insoluble in water. Faint fatty odor and a fatty agreeable taste.		
Physical state	Soluble in hot alcohol, benzene, ether, acetone, mineral or fixed oils.		
Initial boiling point and boiling range (°C)	Divided Solid >300	Relative density (Water = 1) Flash point (°C)	<1 >200
Solubility in water	Immiscible		

## SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

Inhaled	<p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.</p> <p>If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.</p> <p>Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.</p> <p>Fine mists generated from plant/ vegetable (or more rarely from animal) oils may be hazardous. Extreme heating for prolonged periods, at high temperatures, may generate breakdown products which include acrolein and acrolein-like substances.</p> <p>Processing for an overly long time or processing at overly high temperatures may cause generation and release of highly irritating vapours, which irritate eyes, nose, throat, causing red itching eyes, coughing, sore throat.</p> <ul style="list-style-type: none"> <li>Usually handled as molten liquid which requires worker thermal protection and increases hazard of vapour exposure.</li> <li>CAUTION: Vapours may be irritating.</li> </ul>
Ingestion	<p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Large quantities may have a laxative effect and may cause purging of stomach contents.</p>
Skin Contact	<p>Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.</p> <p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>Molten material is capable of causing burns.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
Eye Chronic	<p>There is some evidence to suggest that this material can cause eye irritation and damage in some persons.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung.</p> <p>Prolonged or repeated skin contact may cause degreasing, followed by drying, cracking and skin inflammation.</p> <p>Glycerol triesters (triglycerides) undergo metabolism to become free fatty acids and glycerol. Animal studies show that there is no toxicity when given by mouth unless the material takes up a large proportion of energy intake.</p> <p>Glycerol esters occur throughout nature and make up part of the normal diet.</p>

Stearine, fatty acids C16-C18	TOXICITY Not Available	IRRITATION Not Available
-------------------------------	---------------------------	-----------------------------

## SECTION 12 ECOLOGICAL INFORMATION

Endpoint	Test Duration (hr)	Species	Value
LC50	96	Fish	>1 mg/L
EC50	48	Crustacea	>4.8 mg/L
EC50	72	Algae or other aquatic plants	>0.9 mg/L
NOEC	504	Crustacea	>0.22 mg/L

Bioaccumulative potential	Stearic acid Palmitic acid	LOW (LogKOW = 8.23) LOW (LogKOW = 7.17)
Mobility in soil	Stearic acid Palmitic acid	LOW (KOC = 11670) LOW (KOC = 3431)

## SAFETY DATA SHEET

## SECTION 13 DISPOSAL CONSIDERATION

Product/Packaging disposal

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.  
 A Hierarchy of Controls seems to be common - the user should investigate:  
*Reduction, Reuse, Recycling, Disposal (if all else fails)*  
 This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.  
 DO NOT allow wash water from cleaning or process equipment to enter drains.  
 It may be necessary to collect all wash water for treatment before disposal.  
 In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.  
 Where in doubt contact the responsible authority.  
 Recycle wherever possible.  
 Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.  
 Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material)  
 Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

## SECTION 14 TRANSPORT INFORMATION

Land transport (UN):  
 Air transport (ICAO-IATA / DGR):  
 Sea transport (IMDG-Code / GGVSee):

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS  
 NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS  
 NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS  
 Transport in bulk according to Annex II of MARPOL and the IBC code

## SECTION 15 REGULATORY INFORMATION

HSNO

New Zealand Hazardous Substances and New Organisms (HSNO) Act

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR002624	N.O.S. (Subsidiary Hazard) Group Standard 2017
HSR002535	Gas Under Pressure Mixtures (Subsidiary Hazard) Group Standard 2017
HSR002596	Laboratory Chemicals and Reagent Kits Group Standard 2017
HSR002530	Cleaning Products (Subsidiary Hazard) Group Standard 2017
HSR002585	Fuel Additives (Subsidiary Hazard) Group Standard 2017
HSR002519	Aerosols (Subsidiary Hazard) Group Standard 2017
HSR002521	Animal Nutritional and Animal Care Products Group Standard 2017
HSR002606	Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017
HSR002644	Polymers (Subsidiary Hazard) Group Standard 2017
HSR002647	Reagent Kits Group Standard 2017
HSR002670	Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017
HSR002638	Photographic Chemicals (Subsidiary Hazard) Group Standard 2017
HSR002565	Embalming Products (Subsidiary Hazard) Group Standard 2017
HSR002578	Food Additives and Fragrance Materials (Subsidiary Hazard) Group Standard 2017
HSR002558	Dental Products (Subsidiary Hazard) Group Standard 2017
HSR002684	Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2017
HSR002573	Fire Fighting Chemicals Group Standard 2017
HSR100425	Pharmaceutical Active Ingredients Group Standard 2017
HSR002600	Leather and Textile Products (Subsidiary Hazard) Group Standard 2017
HSR002605	Lubricants (Low Hazard) Group Standard 2017
HSR002571	Fertilisers (Subsidiary Hazard) Group Standard 2017
HSR002648	Refining Catalysts Group Standard 2017
HSR002653	Solvents (Subsidiary Hazard) Group Standard 2017
HSR002544	Construction Products (Subsidiary Hazard) Group Standard 2017
HSR002549	Corrosion Inhibitors (Subsidiary Hazard) Group Standard 2017
HSR100757	Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017
HSR100758	Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017
HSR100759	Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017
HSR100580	Tattoo and Permanent Makeup Substances Group Standard 2017
HSR002612	Metal Industry Products (Subsidiary Hazard) Group Standard 2017
HSR002503	Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017
HSR002552	Cosmetic Products Group Standard 2017

## SECTION 16 OTHER INFORMATION

The information contained in this Safety Data Sheet is obtained from current and reliable sources. Pure Ingredients Ltd provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This Safety Data Sheet summarises our best current knowledge of the health and safety hazard information of the product but does not claim to be all inclusive. This document is intended only as a guide to the appropriate handling of this material.

Reference: supplier's SDS.

v00: 10/11/2020 PIL: New issue. SA287