NU-CHEK-PREP, INC.

P.O. Box 295 109 West Main St., Elysian, MN 56028 U.S.A. Phone: (507) 267-4689 or (507) 267-4582 Fax: (507) 267-4790 E-Mail: info@nuchekprep.com On the Web: nu-chekprep.com



The Home of Fine Lipid Organics

SAFETY DATA SHEET

VERSION: 2 REVISION DATE: 08-25-17

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT SCIENTIFIC NAME: PRODUCT COMMON NAME: PRODUCT NUMBER: CAS NUMBER: PURITY: PRODUCT USE: 9-HEXADECENOIC ACID PALMITOLEIC ACID U-40-A 373-49-9 >99% -FOR RESEARCH AND LABORATORY USE ONLY -NOT INTENDED FOR HUMAN CONSUMPTION -NOT INTENDED FOR MEDICINAL OR DRUG RELATES USES

COMPANY INFORMATION

NU-CHEK-PREP., INC. 109 WEST MAIN STREET ELYSIAN, MN 56028 PHONE: 507-267-4582 FAX: 507-267-4790 EMAIL: INFO@NUCHEKPREP.COM WEBSITE: WWW.NU-CHEKPREP.COM

24 HOUR EMERGENCY CONTACT: CHEMTREC

UNITED STATES: 800-424-9300 INTERNATIONAL: 703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW GHS CLASSIFICATION: NON HAZARDOUS SUBSTANCE

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

PRODUCT SCIENTIFIC NAME:	9-HEXADECENOIC ACID
PRODUCT COMMON NAME:	PALMITOLEIC ACID
FORMULA:	C16H30O2
M.W.:	254.40
CAS #:	373-49-9

SECTION 4: FIRST AID MEASURES

- IF INHALED: MOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CALL A PHYSICIAN.
- SKIN: WASH WITH SOAP AND WATER. CONSULT A PHYSICIAN
- EYES: FLUSH WITH WATER FOR 15 MINUTES AND CONSULT A PHYSICIAN
- INGESTION: DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER AND CONSULT A PHYSICIAN

SECTION 5: FIREFIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: USE WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE OR ALCOHOL RESISTANT FOAM

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: WEAR BREATHING APPARATUS IF NECESSARY

SPECIFIC HAZARDS FROM PRODUCT: NO DATA AVAILABLE

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: USE PERSONAL PROTECTIVE EQUIPMENT, AVOID BREATHING VAPORS, AND IF CONTACT WITH SKIN, WASH IMMEDIATELY

ENVIRONMENTAL PRECAUTIONS: DO NOT LET PRODUCT ENTER DRAINS

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: CONTAIN SPILLAGE AND CONTAIN IN A SUITABLE CONTAINER FOR DISPOSAL

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: AVOID INHALATION OR CONTACT WITH SKIN AND EYES. **CONDITIONS FOR SAFE STORAGE:** KEEP CONTAINER CLOSED IN A DRY AND VENTILATED AREA.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT: RESPIRATORY PROTECTION: RESPIRATORY PROTECTION IS NOT REQUIRED. USE PROTECTIVE MASKS IF RISK ASSESMENT SHOWS THEY ARE NEEDED. USE THEM UNDER TYPE EN 14387. IF RESPIRATORS ARE NEEDED, USE TESTED AND APPROVED EQUIPMENT UNDER GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN (EU).

HAND PROTECTION: HANDLE WITH RECOMMENDED PROTECTIVE GLOVES IF NEEDED. AFTER REMOVAL, WASH AND DRY HANDS, AND DISPOSE OF GLOVES.

EYE PROTECTION: WEAR PROTECTIVE GLASSES AT ALL TIMES. GLASSES WITH SIDE PROTECTION ARE RECOMMENDED.

SKIN PROTECTION: WHERE APPROPRIATE PROTECTIVE CLOTHING. WEAR ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Ph:NO DATA AVAILABLEMELTING POINT:NO DATA AVAILABLEBOILING POINT:NO DATA AVAILABLE
BOILING POINT: NO DATA AVAILABLE
FLASH POINT: NO DATA AVAILABLE
IGNITION TEMP: NO DATA AVAILABLE
AUTO IGNITION TEMP: NO DATA AVAILABLE
UPPER/LOWER EXPLOSION LIMIT: NO DATA AVAILABLE
VAPOUR PRESSURE AND DENSITY: NO DATA AVAILABLE
WATER SOLUBILITY: INSOLUBLE
ODOR: NO DATA AVAILABLE
PARTITION COEFFICIENT: NO DATA AVAILABLE
EVAPORATION RATE: NO DATA AVAILABLE
DENSITY: 0.895 G/ML

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: STABLE UNDER RECOMMENDED STORAGE CONDITIONS **CHEMICAL STABILITY:** STABLE UNDER RECOMMENDED STORAGE CONDITIONS **POSSIBILITY OF HAZARDOUS REACTION:** NO DATA AVAILABLE **CONDITIONS TO AVOID:** NO DATA AVAILABLE **HAZARDOUS DECOMPOSITION PRODUCTS:** NO DATA AVAILABLE

SECTION 11: TOXILOGICAL INFORMATION

ACUTE TOXICITY:	NO DATA AVAILABLE
SKIN CORROSION/IRRITATION:	NO DATA AVAILABLE
SERIOUS EYE DAMAGE/EYE IRRITATION:	NO DATA AVAILABLE
RESPIRATORY OR SKIN SENSATION:	NO DATA AVAILABLE
GERM CELL MUTAGENICITY:	NO DATA AVAILABLE
CARCINOGENICITY:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS
GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOG	EN OR POTENTIAL CARCINIGEN BY IARC, ACGIH, NTP, OR OSHA
REPORDUCTIVE TOXICITY:	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE:	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN REPEATED EXPOSURE:	NO DATA AVAILABLE
ASPIRATION HAZARD:	NO DATA AVAILABLE
SYNERGISTIC EFFECTS:	NO DATA AVAILABLE

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY: PERSISTENCE AND DEGRADABILITY: BIOACCUMULATIVE POTENTIAL: MOBILITY IN SOIL: OTHER ADVERSE EFFECTS:

NO DATA AVAILABLE NO DATA AVAILABLE NO DATA AVAILABLE NO DATA AVAILABLE NO DATA AVAILABLE

SECTION 13: DISPOSAL CONSIDERATION

DISPOSAL METHODS: DISPOSE ACCORDING TO FEDERAL, STATE, OR LOCAL REGULATIONS

SECTION 14: TRANSPORTATION INFORMATION

DOT (US)		NOT DANGEROUS GOODS
MARITIME TRANSPORT	IMDG	NOT DANGEROUS GOODS
AIR TRANSPORTATION	ICAO/IATA	NOT DANGEROUS GOODS
LAND TRANSPORT	ADR/RID	NOT DANGEROUS GOODS

SECTION 15: REGULATORY INFORMATION

SARA 302 COMPONENTS: NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302

SARA 313 COMPONENTS: THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS EXTABLISHED BY SARA TITLE III, SECTION 313

SARA 311/312 HAZARDS: NO KNOWN HAZARDS

CALIFORNIA PROP 65 COMPONENTS: THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE HARM

PRODUCT NAME: 9-HEXADECENOIC ACID

CAS NUMBER: 373-49-9

SECTION 16: OTHER INFORMATION

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT TO THE BEST OF OUR KNOWLEDGE. ALL INFORMATION IS TO BE USED AS A GUIDE INCLUDING PRECAUTIONARY OR EMERGENCY MEASURES. NU-CHEK-PREP., INC. IS NOT TO BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM THE HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.

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PURITY GUARANTEE

NU-CHEK GENERALLY PREPARES CHROMATOGRAPHICALLY PURE COMPOUNDS LISTED IN OUR CATALOG AS HAVING A PURITY GREATER THAN 99%+. VARYING DEGREES OF PURITY (I.E. RELATIVELY PURE GREATER THAN 90%) ARE SO LISTED. COMPOUNDS OF LESSER DEGREE PURITY CAN ALSO BE OBTAINED BY SPECIAL REQUEST.

ALL PRODUCTS MADE AVAILABLE UNDER OUR LABEL ARE GUARANTEED TO MEET THE MINIMUM SPECIFICATIONS DESIGNATED AT THE TIME OF SALE. AGE OR CONDITION OF STORAGE MAY ALTER CHEMICAL PROPERTIES FOR WHICH CHANGE WE CANNOT BE HELD LIABLE.

IF AT THE TIME OF SALE ANY OF OUR PREPARATIONS ARE FOUND TO BE INFERIOR OR OF A DEGREE PURITY LESS THAN SPECIFIED, NU-CHEK WILL SUPPLY YOU (FREE OF CHARGE) AN ADEQUATE REPLACEMENT, OR AT OUR OPTION, REFUND YOUR PURCHASE PRICE. <u>ALL CLAIMS MUST BE MADE WITHIN 60 DAYS OF INVOICE DATE.</u> (ANTIOXIDANTS TEND TO ALTER NORMAL COMPOUND FUNCTIONS AND ARE NEVER ADDED UNLESS REQUESTED SPECIFICALLY.)

> OUR UNSATURATED COMPOUNDS ARE INSERTED IN VIALS BY VOLUME AND NOT WEIGHT-FLUSHED WITH NITROGEN SEVERAL TIMES AND SEALED UNDER HIGH VACUUM.

EACH VIAL CONTAINS AT LEAST THE MINIMUM AMOUNT SPECIFIED ON THE LABEL. EXACT WEIGHTS MAY BE OBTAINED IF DESIRED WITH A \$3.75 RESEAL CHARGE PER VIAL.

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CERTIFICATE OF ANALYSIS

SCIENTIFIC NAME: 9-HEXADECENOIC ACID

COMMON NAME: PALMITOLEIC ACID

DENSITY: 0.895 g/ml

GAS LIQUID CHROMATOGRAPHY: >99%

THIN LAYER CHROMATOGRAPHY: SHOWS ONLY THE ACID MOIETY PRESENT

FORMULA: C₁₆H₃₀O₂

APPEARANCE: CLEAR LIQUID AT ROOM TEMPERATURE

LOT: U-40A-F13-E

FORMULA WEIGHT: 254.40 CAS # 373-49-9

ORIGINAL SOURCE OF MATERIAL: MACADAMIA NUT OIL

EXPIRATION DATE: UNLIMITED IF UNOPENED AND STORED AT 0 OR COLDER. 6 MONTHS IF OPENED AND UNDER GOOD STORAGE CONDITIONS

DUE TO OUR UNIQUE SEALING PROCESS, SHIPPING ON ICE IS NOT NECESSARY. WE DO ASK THAT ONCE RECEIVED, IT IS PLACED IN A COLD PLACE AND OUT OF THE LIGHT

OUR UNSATURATED COMPOUNDS ARE INSERTED IN VIALS BY VOLUME AND NOT WEIGHT, FLUSHED WITH NITROGEN AND SEALED UNDER HIGH VACUUM. EACH VIAL CONTAINS AT LEAST THE MINIMUM AMOUNT SPECIFIED ON THE LABEL. SAFETY DATA INFORMATION

THIS COMPOUND MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE SKIN. IT MAY CAUSE EYE IRRITATION, BE IRRITABLE TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

TO THE BEST OF OUR KNOWLEDGE THE TOXICOLOGICAL PROPERTIES HAVE NOT BEEN FULLY INVESTIGATED.

CONTAMINATION OF THE EYES OR SKIN SHOULD BE FOLLOWED BY WASHING WITH LARGE AMOUNTS OF WATER.

ALL OF THE COMPOUNDS WHICH YOU HAVE PURCHASED FROM NU-CHEK-PREP ARE HIGHLY PURIFIED LIPID STANDARDS THAT HAVE BEEN ISOLATED OR SYNTHESIZED FROM VARIOUS VEGETABLE OILS.

AS A FINAL PRECAUTIONARY MEASURE, ALL RESIDUAL VOLATILE ORGANIC CONTAMINATES ARE REMOVED BY HIGH VACUUM FRACTIONAL DISTILLATION. SINCE MANY OF OUR PURE PRODUCTS ARE UNSATURATED, THE FINAL PRODUCT IS GENERALLY FLUSHED WITH INERT GAS (i.e., N_2) AND HERMETICALLY SEALED IN GLASS VIALS UNDER VACUUM AND STORED UNDER LOW TEMPERATURE (-30°C) CONDITIONS UNTIL READY FOR SHIPMENT.

THESE PRODUCTS ARE PREPARED IN SMALL RESEARCH QUANTITIES FOR THE LIPID ORGANIC SCIENTIFIC COMMUNITY. WHILE THESE MATERIALS MAY BE TOXIC, THEY ARE NOT INTENDED FOR HUMAN CONSUMPTION OR AS A MEDICINAL OR DRUG RELATED USES. OUR PRODUCTS ARE USED IN ANIMAL STUDIES AND AS STANDARDS STRICTLY FOR RESEARCH.

WE CERTIFY THIS LOT CONFORMS TO THE PRODUCT SPECIFICATIONS AND HAS BEEN RELEASED FOR SALE.

COUNTRY OF ORIGIN AND MANUFACTURE: UNITED STATES OF AMERICA