



**CHEMICAL ASSOCIATES**  
1270 South Cleveland-Massillon Road  
Building B  
Copley, OH 44321-1683

## MATERIAL SAFETY DATA SHEET

**EMERGENCY PHONE: 800-347-2891**  
**MSDS REFERENCE: CA1040**

**CHEMTREC: 800-424-9300**

### SECTION I - IDENTIFICATION

**PRODUCT:** CA1040 RUBBER GRADE STEARIC ACID  
**SYNONYMS:** OCTADECANOIC ACID, STEARIC ACID  
**CHEMICAL:** ALIPHATIC ACID  
**CAS NO:** 57-11-4  
**SARA HAZARD:** NONE NOTED (SECTION 311/312)  
TITLE III SECTION 313 NOT LISTED

### SECTION II - INGREDIENTS AND HAZARD CLASSIFICATION

COMPOSITION	TYPICAL %	PEL/TLV	HAZARD
STEARIC ACID (57-11-4)	58	NONE/NONE	NONE NOTED
PALMITIC ACID (57-10-3)	30	NONE/NONE	NONE NOTED
OLEIC ACID (112-80-1)	6	NONE/NONE	NONE NOTED
MYRISTIC ACID (544-63-8)	4	NONE/NONE	NONE NOTED
MARGARIC ACID (506-12-7)	2	NONE/NONE	NONE NOTED

### SECTION III - HEALTH INFORMATION

**INHALATION:** UNKNOWN

**INGESTION:** LD50:> 10 G/KG (ALBINO RATS) (STEARIC & PALMITIC ACIDS)  
LD50:> 21.5 ML/KG (MALE ALBINO RATS) (OLEIC ACID)

**EYE CONTACT:** STEARIC-PALMITIC MIXTURES PRODUCED ONLY MILD CONJUNCTIVAL ERYTHEMA IN TWO OF SIX RABBITS AT THE 24 AND 48-HOUR READINGS. NO OTHER SIGNS OF IRRITATION WERE OBSERVED. ALL SIGNS OF IRRITATION HAD SUBSIDED COMPLETELY AT THE 72-HOUR READING.

**SKIN CONTACT:** EXPOSURE TO STEARIC-PALMITIC ACID MIXTURES CAUSED NO SIGNS OF IRRITATION OR CORROSIVITY AT EITHER INTACT OR ABRADED SITES ON ALBINO RABBIT. EXPOSURE TO OLEIC ACID RESULTED IN VERY SLIGHT ERYTHEMA IN SIX INTACT AND SIX ABRADED SITES ON ALBINO RABBITS AT THE 24-HOUR READING ONLY. NO EDEMA WAS OBSERVED AT EITHER OBSERVATION.

PRIMARY IRRITATION INDEX WAS 0.0 - 0.5. 75 MG OF STEARIC ACID APPLIED INTERMITTENTLY TO HUMAN SKIN OVER A 3-DAY PERIOD RESULTED IN MILD IRRITATION. 500 MG OF STEARIC ACID APPLIED TO RABBIT SKIN OVER A 24-HOUR PERIOD RESULTED IN MODERATE IRRITATION. 15 MG OF OLEIC ACID INTERMITTENTLY APPLIED TO HUMAN SKIN OVER A 3-DAY PERIOD RESULTED IN MODERATE IRRITATION. 500 MG OF OLEIC ACID APPLIED TO RABBIT SKIN IN AN OPEN DRAIZE TEST RESULTED IN MILD IRRITATION.

#### SECTION IV - OCCUPATIONAL EXPOSURE LIMITS

PEL: NO OSHA PEL  
TLV: NO ACGIH TLV

#### SECTION V - EMERGENCY FIRST AID PROCEDURE

**INGESTION:** CALL A PHYSICIAN OR POISON CONTROL CENTER PROMPTLY. DO NOT INDUCE VOMITING UNLESS OTHERWISE INSTRUCTED TO DO SO.

**INHALATION:** IMMEDIATELY REMOVE VICTIM TO FRESH AIR. IF VICTIM HAS STOPPED BREATHING GIVE ARTIFICIAL RESPIRATION, PREFERABLY BY MOUTH TO MOUTH. GET MEDICAL ATTENTION IMMEDIATELY.

**EYE CONTACT:** IMMEDIATELY FLUSH EYES WITH PLENTY OF COOL WATER FOR AT LEAST 15 MINUTES. DO NOT LET VICTIM RUB EYES. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN CONTACT:** WASH AFFECTED AREA

#### SECTION VI - PHYSICAL DATA

**BOILING POINT:** APPROX. 721 DEG F (383 DEG C)  
**MELTING POINT:** 52-65 DEG C  
**VAPOR PRESSURE:** 10 MM HG PRESSURE AT 225 DEG C (APPROX.)  
**SPECIFIC GRAVITY:** 0.85 AT 75/20 DEG C  
**SOLUBILITY IN WATER:** INSOLUBLE  
**APPEARANCE AND COLOR:** WHITE, WAXY SOLID WITH A FATTY ACID ODOR

#### SECTION VII - FIRE AND EXPLOSION HAZARDS

**FLASH POINT AND METHOD USED:** 365 DEG F (185 DEG C) C.O.C.  
**FLAMMABLE LIMITS IN AIR, % BY VOL. LOWER:** NOT ESTABLISHED  
**FLAMMABLE LIMITS IN AIR, % BY VOL. UPPER:** NOT ESTABLISHED  
**NFPA RATING: HEALTH: (1) FIRE: (1) REACTIVITY: (0)**  
**HMIS RATING: HEALTH: (1) FIRE: (1) REACTIVITY: (0)**

#### SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:

INDIVIDUALS SHOULD PERFORM ONLY THOSE FIRE PROCEDURES FOR WHICH THEY HAVE BEEN TRAINED. WATER OR FOAM MAY CAUSE FROTHING WHEN APPLIED TO FLAMMABLE LIQUIDS HAVING FLASH POINTS ABOVE 212 DEG F (100 DEG C). THE REMARK IS INCLUDED ONLY AS A PRECAUTION AND DOES NOT MEAN THAT WATER OR FOAM SHOULD NOT OR COULD NOT BE USED IN FIGHTING FIRES IN SUCH LIQUIDS. THE FROTHING MAY BE QUITE VIOLENT AND COULD ENDANGER THE LIFE OF THE FIREFIGHTER PARTICULARLY WHEN SOLID STREAMS ARE DIRECTED INTO THE HOT BURNING LIQUID. ON THE OTHER HAND, WATER SPRAY

CAREFULLY APPLIED HAS FREQUENTLY BEEN USED WITH SUCCESS IN EXTINGUISHING SUCH FIRES BY CAUSING THE FROTHING TO OCCUR ONLY ON THE SURFACE AND THIS FOAMING ACTION BLANKETS THE EXTINGUISHES THE FIRE. (NFPA 325M-1984)

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

FIREFIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS IN THE POSITIVE-PRESSURE MODE WITH A FULL FACEPIECE WHEN THERE IS A POSSIBILITY OF EXPOSURE TO SMOKE, FUMES OR HAZARDOUS DECOMPOSITION PRODUCTS. STEARIC ACID POWDER IS A FLAMMABLE DUST. CONCENTRATIONS AS LOW AS 0.017 OZ/CU FT IN AIR CAN BURN AND IF IGNITED IN A CONFINED SPACE CAN EXPLODE.

<b>SECTION VIII - REACTIVITY</b>
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<b>STABILITY:</b>	GENERALLY STABLE
<b>HAZARDOUS POLYMERIZATION:</b>	NONE LIKELY
<b>CONDITIONS AND MATERIALS TO AVOID:</b>	AVOID CONTACT WITH STRONG OXIDIZING AGENTS AND ALKALIES
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	DECOMPOSITION MAY PRODUCE CARBON MONOXIDE AND CARBON DIOXIDE.

<b>SECTION IX - EMPLOYEE PROTECTION</b>
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**CONTROL MEASURES:**

HANDLE IN THE PRESENCE OF ADEQUATE VENTILATION.

**RESPIRATORY PROTECTION:**

RECOMMENDED EXPOSURE LIMITS (I.E., OSHA-PEL AND ACGIH-TLV) HAVE NOT BEEN ESTABLISHED FOR THIS MATERIAL. WHETHER THERE IS A NEED FOR RESPIRATORY PROTECTION UNDER YOUR CONDITIONS OF HANDLING OF THIS MATERIAL SHOULD BE EVALUATED BY A QUALIFIED HEALTH SPECIALIST.

**PROTECTIVE CLOTHING:**

WEAR GLOVES AND PROTECTIVE CLOTHING WHICH ARE IMPERVIOUS TO THE PRODUCT FOR THE DURATION OF ANTICIPATED EXPOSURE IF THERE IS POTENTIAL FOR PROLONGED OR REPEATED SKIN CONTACT.

**EYE PROTECTION:**

WEAR SAFETY GLASSES MEETING THE SPECIFICATIONS OF ANSI STANDARD Z87.1, WHERE NO CONTACT WITH THE EYE IS ANTICIPATED. CHEMICAL SAFETY GOGGLES MEETING THE SPECIFICATIONS OF ANSI STANDARD Z87.1 SHOULD BE WORN WHENEVER THERE IS THE POSSIBILITY OF SPLASHING OR OTHER CONTACT WITH THE EYES.

<b>SECTION X - ENVIRONMENTAL PROTECTION</b>
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**ENVIRONMENTAL PRECAUTIONS:**

AVOID UNCONTROLLED RELEASES OF THIS MATERIAL. WHERE SPILLS ARE POSSIBLE, A COMPREHENSIVE SPILL RESPONSE PLAN SHOULD BE DEVELOPED AND IMPLEMENTED.

**SPILL OR LEAK PRECAUTIONS:**

WEAR APPROPRIATE RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING AS DESCRIBED IN SECTION IX. CONTAIN SPILLED MATERIAL. TRANSFER TO SECURE CONTAINER. WHERE NECESSARY COLLECT USING ABSORBENT MEDIA. IN THE EVENT OF AN UNCONTROLLED RELEASE OF THIS MATERIAL, THE USER SHOULD DETERMINE IF THE RELEASE IS REPORTABLE UNDER APPLICABLE LAWS AND REGULATIONS.

**WASTE DISPOSAL:**

ALL RECOVERED MATERIAL SHOULD BE PACKAGED, LABELED, TRANSPORTED, AND DISPOSED OR RECLAIMED IN CONFORMANCE WITH APPLICABLE LAWS AND REGULATIONS AND IN CONFORMANCE WITH GOOD ENGINEERING PRACTICES. AVOID LANDFILLING OF LIQUIDS. RECLAIM WHERE POSSIBLE.

**SECTION XI - REGULATORY CONTROLS**

**DEPARTMENT OF TRANSPORTATION:**

**DOT CLASSIFICATION:** NOT REGULATED

**DOT PROPER SHIPPING NAME:**

**OTHER DOT INFORMATION:**

**OTHER REGULATORY INFORMATION:**

**LISTED IN TSCA INVENTORY**

**LISTED IN CANADIAN DSL INVENTORY**

**LISTED IN EUROPEAN INVENTORY**

**LISTED IN JAPAN INVENTORY**

**LISTED IN AUSTRALIAN INVENTORY**

**CERCLA HAZARDOUS MATERIALS:**

NONE NOTED

**SECTION XII - PRECAUTIONS: HANDLING, STORAGE AND USAGE**

NO SPECIAL PRECAUTIONS NECESSARY.

TO PRESERVE THE COLOR AND ODOR CHARACTERISTICS OF THIS PRODUCT, KEEP IN CLOSED OR COVERED CONTAINERS AND DO NOT STORE NEAR SOURCES OF HEAT.

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Chemical Associates bears responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

**CHEMICAL ASSOCIATES**

**1270B SOUTH CLEVELAND-MASSILLON ROAD**

**COPLEY, OHIO 44321-1683**

**DATE: 6/21/11**  
**SUPERSEDES: 10/19/08**