



SAFETY DATA SHEET

Conforms to the requirements of the United States Hazard Communication regulation 29 CFR 1910.1200

SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION

PRODUCT NAME	EMULGEN 321
PRODUCT CASRN	68439-49-6
PRODUCT DESCRIPTION	FATTY ALCOHOL, ETHOXYLATED
SDS DOCUMENT No.	S03115
RECOMMENDED USES	This product is intended for use as a surface-active agent in industrial and commercial applications.

RESPONSIBLE PARTY

Kao Specialties Americas LLC
243 Woodbine Street
P. O. Box 2316
High Point, NC 27261
Telephone: 1-800-727-2214

Refer to SECTION 16 for information regarding the
MANUFACTURER(s) of this product

FOR ALL TRANSPORTATION ACCIDENTS, call Chemtrec at 800-424-9300 or 703-527-3887 for international collect calls.

SECTION 2: HAZARD(S) IDENTIFICATION

PRODUCT CLASSIFICATION per 29 CFR 1910.1200

HAZARD CLASSIFICATION	Serious Eye Damage/Eye Irritation Category 1 Skin Corrosion/Irritation Category 2 Acute Toxicity - Oral Category 4
SIGNAL WORD	Danger
HAZARD STATEMENTS	Harmful if swallowed. Causes skin irritation. Causes serious eye damage.

**HAZARD
PICTOGRAMS**



RECOMMENDED SAFETY PRECAUTIONS

INJURY PREVENTION	<p>Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear chemical-resistant gloves and clothing, eye protection and face protection.</p>
EMERGENCY RESPONSE	<p>IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.</p>
PRODUCT STORAGE	<p>The storage area must be protected by properly designed containment to prevent the release of product to groundwater or sewers. Keep container tightly closed when not in use. Store in a well ventilated area.</p>
PRODUCT DISPOSAL	<p>Dispose of contents and container in accordance with local, national, and international regulations for hazardous wastes.</p>

HAZARDS NOT OTHERWISE CLASSIFIED

PYROPHORIC GASES	Not applicable
SIMPLE ASPHYXIANTS	Not applicable
COMBUSTIBLE DUST	Not applicable

Dust Classification	Minimum Ignition Energy (mJ)	Pmax (bar-g)	Rmax (bar/s)	Kst (bar-m/s)	Explosion Severity
Not Applicable					

Definitions for dust classifications are found in OSHA Instruction CPL 03-00-008 *Combustible Dust National Emphasis Program (reissued)* March 11, 2008, Appendix E, Section 5

Other Known Hazards	None
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FOR INFORMATION REGARDING ENVIRONMENTAL GHS CLASSIFICATION, REFER TO SECTION 12 BELOW

SECTION 3: COMPOSITION/INFORMATION on INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration (%)
Alcohols, C16-18, ethoxylated	Cetyl-stearyl alcohols, ethoxylated	68439-49-6	~ 100

If any items in the table above are described as CONFIDENTIAL, Kao Specialties Americas LLC considers this information to constitute a Trade Secret.

SECTION 4: FIRST-AID MEASURES

EYES	Immediately flush eyes with plenty of water for at least 15 minutes. If necessary, seek medical attention.
SKIN	For skin contact, wash immediately with soap and water. If necessary, seek medical attention.
INGESTION	If the material is swallowed, get immediate medical attention or advice.
INHALATION	If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen.
SYMPTOMS of EXPOSURE	None known.
NOTES to PHYSICIAN	Provide general supportive measures and treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES	Refer to SECTION 9: Physical and Chemical Properties
HAZARDOUS PRODUCTS of COMBUSTION	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
PROPERTIES THAT COULD INCREASE FIRE or EXPLOSION HAZARD	No known hazards.
EXTINGUISHING MEDIA	Foam (preferred), dry chemical, water.
FIRE-FIGHTING INSTRUCTIONS	Firefighters should wear full protective clothing including self contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

FOR ALL TRANSPORTATION ACCIDENTS, call Chemtrec at 800-424-9300 or 703-527-3887 for international collect calls.

RESPONSE TO SMALL SPILLS OF PRODUCT

SPILL CONTAINMENT	Dike the spilled material, where this is possible.
SPILL CLEANUP PROCEDURES	Collect the spilled material with an inert absorbent such as sand or vermiculite. Place in properly labeled closed container.
REQUIRED EQUIPMENT	Shovel the material into waste container.
ADDITIONAL INFORMATION	No other spill procedures necessary.

RESPONSE TO LARGE SPILLS OF PRODUCT

SPILL CONTAINMENT	Stop the flow of material, if this is without risk. Block any potential routes to water systems. Dike the spilled material, where this is possible.
SPILL CLEANUP PROCEDURES	Absorb spill with inert material. Shovel material into appropriate container for disposal. Thoroughly wash the area with water after a spill or leak clean-up. Dispose of spent absorbent in an approved industrial waste landfill.
REQUIRED EQUIPMENT	Wear appropriate protective equipment and clothing during clean-up.
ADDITIONAL INFORMATION	Spilled product creates extremely slippery conditions, especially in contact with water.

SECTION 7: HANDLING AND STORAGE

HANDLING REQUIREMENTS	As with all chemicals, good industrial hygiene practices should be followed when handling this material. Avoid getting this material into contact with your skin and eyes. Wash hands after handling and before eating. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or promptly disposed of.
STORAGE REQUIREMENTS	Storage area should be protected by appropriately designed containment to prevent release to groundwater or sewers. Keep the container tightly closed and in a cool, well-ventilated place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS | Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION | Wear chemical goggles and face shield.

HAND PROTECTION | Use impervious gloves.

SKIN PROTECTION | Normal work clothing (long sleeved shirts and long pants) is recommended.

RESPIRATORY PROTECTION | A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever there may be potential for airborne exposure.

EXPOSURE LIMITS

CHEMICAL	CASRN	PERCENT	LIMITS	AGENCY
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OSHA: No exposure limits established for this product

ACGIH: No exposure limits established for this product

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE @ 20°C	White solid	ODOR	Sweet odor
ODOR THRESHOLD	No data available	pH	6.0 to 8.0 (1% solution)
VAPOR DENSITY	No data available	VAPOR PRESSURE	No data available
EVAPORATION RATE	No data available	RELATIVE DENSITY	1g/mL @ 20°C
MELTING POINT (°C)	45°C	WATER SOLUBILITY	Disperses
INITIAL BOILING POINT (°C)	No data available	BOILING RANGE (°C)	No data available
PARTITION COEFFICIENT (N-OCTANOL/WATER)	No data available	VISCOSITY	No data available

DECOMPOSITION TEMPERATURE	No data available	FLAMMABILITY CLASSIFICATION	Not evaluated
FLASH POINT (°C)	> 93°C Cleveland Open Cup	AUTO-IGNITION TEMPERATURE	No data available
UPPER EXPLOSIVE LIMIT	No data available	LOWER EXPLOSIVE LIMIT	No data available

SECTION 10: STABILITY and REACTIVITY

CHEMICAL STABILITY	Stable under normal conditions.
CONDITIONS to AVOID	None known
INCOMPATIBLE MATERIALS (Reactivity)	None known.
INCOMPATIBLE MATERIALS (Storage & Transport)	This product may react with strong acids or oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS	None known.
HAZARDOUS POLYMERIZATION	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

EYE EFFECTS	This product is severely irritating to the eyes and may cause eye burns.
SKIN EFFECTS	This product is irritating to the skin.
ACUTE ORAL EFFECTS (INGESTION)	Slightly toxic by ingestion.
ACUTE INHALATION EFFECTS	Low vapor pressure makes inhalation unlikely at standard temperatures and pressures.
TARGET ORGANS	No known effects.

CHRONIC EFFECTS

MUTAGENICITY	No information available
TERATOLOGY	No data available for this product.
REPRODUCTIVE and DEVELOPMENTAL TOXICITY	No information available.

CARCINOGENICITY

CHEMICAL NAME	DATA	AGENCY	LIST
None of the components of this product are listed on the OSHA Possible or Select Carcinogens Lists.			
None of the components of this product are listed on the ACGIH Carcinogens List.			
No limits established for this product by the International Agency for Research on Cancer (IARC).			
None of the components of this product are listed on the NTP Known or Suspected Carcinogens List.			

LETHAL DOSE (LD50 & LC50) DATA

LD50 ORAL	LD50 Oral Rat : 300 - 2000 mg/kg	(data from similar materials)
LD50 DERMAL	LD50 Dermal Rabbit > 2000 mg/kg	(data from similar materials)
LC50 INHALATION	No information available	

MEDICAL CONDITIONS AGGRAVATED by EXPOSURE	No information available.
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ROUTES of ENTRY	Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation.
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SECTION 12: ECOLOGICAL INFORMATION

UN GHS AQUATIC TOXICITY CLASSIFICATION INFORMATION

AQUATIC TOXICITY CLASSIFICATION	Acute 2
SIGNAL WORD	Not applicable
HAZARD PICTOGRAM	Not applicable
HAZARD STATEMENT	Toxic to aquatic life.

PREVENTION		Avoid release to the environment.
RESPONSE		Not applicable
DISPOSAL		Dispose of contents and container in accordance with local, national, and international regulations for hazardous wastes.

ADDITIONAL ENVIRONMENTAL INFORMATION

ECOTOXICITY INFORMATION		None determined
ENVIRONMENTAL FATE		No data available for this product.
BIOLOGICAL OXYGEN DEMAND (BOD5), g/g		No data available
CHEMICAL OXYGEN DEMAND (COD), g/g		No data available
PERSISTENCE & DEGRADABILITY		No information available.
BIOACCUMULATION		No information available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DESCRIPTION		No components are identified as hazardous wastes.
GENERAL DISPOSAL CONSIDERATIONS		Clean up and dispose of waste in accordance with all federal, state, and local environmental regulations.
DISPOSAL of EMPTY CONTAINERS		Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

RCRA COMPONENT	CASRN	DATA
No limits established for this product.		

SECTION 14: TRANSPORT INFORMATION

US DOT	IATA	IMDG

UN NUMBER	Not applicable	Not applicable	Not applicable
UN PROPER SHIPPING NAME	Non-hazardous material	Non-hazardous material	Non-hazardous material
TRANSPORT HAZARD CLASS(ES)	Not applicable	Not applicable	Not applicable
PACKING GROUP	Not applicable	Not applicable	Not applicable
REPORTABLE QUANTITY (RQ)	No reportable quantity for this product		
EMERGENCY RESPONSE GUIDEBOOK (ERG) REFERENCE	Not applicable		
MARINE POLLUTANT	None		

SECTION 15: REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)	This product is listed on the U.S. EPA TSCA Inventory.
EXPORT NOTIFICATIONS	This product is not subject to TSCA 12B Export Notification requirements.
SIGNIFICANT NEW USE RULE (SNUR)	This material is not subject to a Significant New Use Rule under the US Toxic Substances Control Act.

INTERNATIONAL CHEMICAL INVENTORIES

All of the components of this product are listed on the following inventories:

DSL	Canada	Yes	
NDSL	Canada	No	
ENCS	Japan	Yes	
EINECS	Europe	Yes	NLP (500-212-8)
ELINCS	Europe	No	
IECSC	China	Yes	
PICCS	Philippines	Yes	
ECL	Korea	Yes	Registry No. KE-13392
AICS	Australia	Yes	
TCSI	Taiwan	Not evaluated	

**EMERGENCY PLANNING and COMMUNITY RIGHT TO KNOW ACT (EPCRA)
40 CFR PART 355, APPENDIX A**

EHS COMPONENTS	CASRN	PERCENT	TPQ POUNDS and RQ
No limits established for this product.			

313 COMPONENTS	CASRN	PERCENT	REPORTING LIMIT
No limits established for this product.			

CERCLA/SARA COMPONENTS	CASRN	PERCENT	REPORTING LIMIT
No limits established for this product.			

EPCRA SECTION 311/312 CLASSIFICATION	ACUTE	Yes
	CHRONIC	No
	FIRE	No
	PRESSURE	No
	REACTIVE	No

OTHER FEDERAL REGULATIONS

The following components are identified under the Clean Air Act HON-Rule for SOCM I chemicals:

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Air Act (VOCs in SOCM I chemicals):

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Air Act as Hazardous Air Pollutants (HAP)

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Air Act HON-Rule Hazardous Air Pollutants (HAP)

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Water Act:

COMPONENT NAME	CASRN	LIST NAME
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No limits established for this product.

STATE RIGHT-TO-KNOW INFORMATION:

COMPONENT NAME	CASRN	STATE	List Name
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If the STATE RIGHT-TO-KNOW INFORMATION table above is empty than none of the components of this product are included on the state right-to-know regulatory lists for Florida, Massachusetts, Michigan, Pennsylvania, or New Jersey.

CALIFORNIA SAFE WATER and TOXIC ENFORCEMENT ACT of 1986 (Proposition 65)

COMPONENT NAME	CASRN	CONCENTRATION [‡]	LIST DATA
Ethylene oxide	75-21-8	10 ppm	carcinogen, 7/1/1987
1,4-Dioxane	123-91-1	10 ppm	carcinogen, 1/1/1988
Ethylene oxide	75-21-8	10 ppm	developmental toxicity, 8/7/2009
Ethylene oxide	75-21-8	10 ppm	female reproductive toxicity 2/27/87
Ethylene oxide	75-21-8	10 ppm	male reproductive toxicity, 8/7/09
Ethylene oxide	75-21-8	10 ppm	20 µg/day MADL
Ethylene oxide	75-21-8	10 ppm	2 µg/day NSRL
1,4-Dioxane	123-91-1	10 ppm	30 µg/day NSRL

[‡] CONCENTRATIONS EXPRESSED IN % UNLESS UNITS ARE SPECIFIED

SECTION 16: OTHER INFORMATION

To the best of the manufacturer's knowledge, the information contained herein is accurate. However, neither the manufacturer, nor any of its affiliates, make any representations or warranties (expressed or implied), nor assumes any liability (including liability for any direct, incidental, consequential, or other damages) with respect to the accuracy or completeness of the information contained herein. Such information may be (without limitation) invalid if the specified material is used in combination with another, in a particular process, or under unusual conditions. Determination of suitability of any material for any given purpose is the sole responsibility of the user who assumes all risk and responsibility therefore. All materials may present unknown hazards and should be used with appropriate caution. The manufacturer cannot and does not guarantee that the hazards described herein are the only ones that exist.

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SDS APPROVED BY

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MANUFACTURER(S)

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NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD RATINGS

HEALTH	3
FLAMMABILITY	1
REACTIVITY	0

Hazardous Material Identification System (HMIS) Hazard Ratings

HEALTH	3
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	D

The following components of this product are listed on the Canadian WHMIS Ingredient Disclosure List (IDL):

COMPONENT	CASRN	PERCENT	MINIMUM CONCENTRATION
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No regulatory limits established for this product.

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