



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	FRUITATE
PRODUCT CASRN	129520-41-8
PRODUCT DESCRIPTION	ALIPHATIC ESTER
SDS DOCUMENT No.	K00800
RECOMMENDED USES	This product is intended for use in fragrance 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	Skin Corrosion/Irritation Category 2 Serious Eye Damage/Eye Irritation Category 2A
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SIGNAL WORD	Warning
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HAZARD STATEMENTS	Causes skin irritation. Causes serious eye irritation.
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HAZARD PICTOGRAMS	
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RECOMMENDED SAFETY PRECAUTIONS

INJURY PREVENTION	Wash thoroughly after handling. Wear chemical-resistant gloves and clothing, eye protection and face protection.
EMERGENCY RESPONSE	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. If skin or eye irritation occurs: get medical attention or advice. Take off contaminated clothing and wash before reuse.
PRODUCT STORAGE	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.
PRODUCT DISPOSAL	DISPOSE of product and containers in accordance with all applicable local, state, federal, and international regulations.

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 (%)
4, 7-Methano-3aH-indene-3a-carboxylic acid, octahydro-, ethyl ester	4, 7-Methano-3aH-indene-3a-carboxylic acid, octahydro-, ethyl ester	129520-41-8	~ 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	Powder, alcohol-resistant foam, CO2 & sand
FIRE-FIGHTING INSTRUCTIONS	Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA ratings are found in SECTION 16

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	Stop the flow of material, if this is without risk. Contain the discharged material.
SPILL CLEANUP PROCEDURES	Absorb spill with inert material. Shovel material into appropriate container for disposal.
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. Dike the spilled material, where this is possible. Prevent liquid from entering sewers. Keep out of drains and water courses.
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	Surfaces may become slippery after spillage. Have emergency equipment readily available. Remove soiled clothing and launder before reuse.

SECTION 7: HANDLING AND STORAGE

HANDLING REQUIREMENTS	As with all chemicals, good industrial hygiene practices should be followed when handling this material. Do not get this material in your eyes, on your skin, or on your clothing. Wash thoroughly after handling. 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.
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PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION	Wear chemical goggles.
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.
OTHER	Eyewash fountains and emergency showers are required.

EXPOSURE LIMITS

CHEMICAL	CASRN	PERCENT	LIMITS	AGENCY
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	Clear, colorless liquid	ODOR	Characteristic odor
ODOR THRESHOLD	No data available	pH	No information available
VAPOR DENSITY	No data available	VAPOR PRESSURE	No data available
EVAPORATION RATE	No data available	RELATIVE DENSITY	1.04g/mL @ 20°C
MELTING POINT (°C)	No data available	WATER SOLUBILITY	Poor in Water.
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	CLASS IIIB
FLASH POINT (°C)	116°C Cleveland Open Cup	AUTO-IGNITION TEMPERATURE	250°C

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)** | No information available.

**HAZARDOUS
DECOMPOSITION
PRODUCTS** | None known.

**HAZARDOUS
POLYMERIZATION** | Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

EYE EFFECTS | This product is irritating to the eyes.

SKIN EFFECTS | This product is irritating to the skin.

**ACUTE ORAL
EFFECTS
(INGESTION)** | Not a likely route of entry.

**ACUTE INHALATION
EFFECTS** | No information available.

TARGET ORGANS | No known effects.

CHRONIC EFFECTS

MUTAGENICITY	Ames Test (TA98, TA100, TA1535, TA1537, TA1538): Negative Ames Test (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA): Negative Chromosomal aberration test (CHL cells): S9(-) Positive Chromosomal aberration test (CHL cells): S9(+) Negative Micronucleus test: (mouse bone-marrow cell) Negative In vitro unscheduled DNA synthesis test (rat liver cell) Negative
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TERATOLOGY	No data available for this product.
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REPRODUCTIVE and DEVELOPMENTAL TOXICITY	No information available.
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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 > 5 g/kg
LD50 DERMAL	LD50 Dermal Rat > 2 g/kg
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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OTHER TOXICOLOGICAL INFORMATION	Skin Corrosion/Irritation: Rabbit, 100%, 4 hr. semi-occluded application (OECD404): Not Classified Serious Eye Damage/Irritation: Rabbit, 100%, OECD Guidelines No.405: Not Classified Skin Sensitization: Guinea Pig, Guinea Pig Maximization Test: Negative Skin Sensitization: Guinea Pig, Guinea Pig Buehler Test: Negative Specific Target Organ Toxicity (repeated): Rat, 28 days repeated dose oral toxicity test (OECD407): NOTEL = 1000 mg/kg/day
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SECTION 12: ECOLOGICAL INFORMATION

UN GHS AQUATIC TOXICITY CLASSIFICATION INFORMATION

AQUATIC TOXICITY CLASSIFICATION | Acute 2
Chronic 2

SIGNAL WORD | Not applicable

HAZARD PICTOGRAM



HAZARD STATEMENT | Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

PREVENTION | Avoid release to the environment.

RESPONSE | Collect spillage.

DISPOSAL | Dispose of contents and container in accordance with local, national, and international regulations for hazardous wastes.

ADDITIONAL ENVIRONMENTAL INFORMATION

AQUATIC TOXICITY (fish) | 96 hr LC50 Rainbow Trout : 5.1 mg/L

AQUATIC TOXICITY (crustacean) | 48 hr EC50 daphnia magna : 5.9 mg/L

AQUATIC TOXICITY (algae) | No information available

AQUATIC TOXICITY (other data) | Algal inhibition test, 72 hour, ErC50 : 6.24 mg/L

ECOTOXICITY INFORMATION | None determined

ENVIRONMENTAL FATE | Material is poorly biodegradable

BIOLOGICAL OXYGEN DEMAND (BOD5), g/g | No data available

CHEMICAL OXYGEN DEMAND (COD), g/g | No data available

PERSISTENCE & DEGRADABILITY

Closed bottle test (OECD301D) : 54 % (28 days)

BIOACCUMULATION

Bioconcentration test (OECD305C) : Bioconcentration factor 11- 137

SECTION 13: DISPOSAL CONSIDERATIONS**WASTE DESCRIPTION**

Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of 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	UN3082	UN3082	UN3082
UN PROPER SHIPPING NAME	Environmentally hazardous substances, liquid, n.o.s.	Environmentally hazardous substances, liquid, n.o.s.	Environmentally hazardous substances, liquid, n.o.s.
TECHNICAL NAME	containing ethyl tricyclo [5.2.1.02,6]decane-2-carboxylate	containing ethyl tricyclo [5.2.1.02,6]decane-2-carboxylate	containing ethyl tricyclo [5.2.1.02,6]decane-2-carboxylate
TRANSPORT HAZARD CLASS(ES)	9	9	9
PACKING GROUP	III	III	III
REPORTABLE QUANTITY (RQ)	No reportable quantity for this product		
EMERGENCY RESPONSE GUIDEBOOK (ERG) REFERENCE	171		
MARINE POLLUTANT	MARINE POLLUTANT		

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	No	
NDSL	Canada	Yes	
ENCS	Japan	Yes	Registry No. 4-1398
EINECS	Europe	No	
ELINCS	Europe	Yes	Registry No. 407-520-0
IECSC	China	Yes	
PICCS	Philippines	Yes	
ECL	Korea	Yes	Registry No. KE-26597
AICS	Australia	Yes	
TCSI	Taiwan	Yes	

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
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
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This product contains no components which are listed on California's Proposition 65 lists.

[‡] 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.

SDS GENERATED BY	PSIMCOX
SDS VERSION DATE	6/28/2016 1:36:01 PM
SDS APPROVED BY	Patrick B. Simcox Manager – Health, Safety, & Environmental e-mail: psimcox@ksallc.com

MANUFACTURER(S)	Kao Corporation 1-3, Bunka 2-chome, Sumida-ku Tokyo, Japan 131-8501 Phone: 011-81-3-5630-7700 KAO CORPORATION, S.A. Puig dels Tudons, 10 BARBERA DEL VALLES Barcelona, Spain 08210
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NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD RATINGS

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0

Hazardous Material Identification System (HMIS) Hazard Ratings

HEALTH	2
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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