

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 PRODUCT CASRN PRODUCT DESCRIPTION SDS DOCUMENT No. RECOMMENDED USES

PERANAT 90397-38-9 Acyclic ester K80040 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	This product does not satisfy any of the criteria for a hazardous material per the guidelines established by the United Nations (Globally Harmonized System of Classification and Labelling of Chemicals) as specified in 29 CFR 1910.1200 Hazard Communication (2012).
SIGNAL WORD	Not Applicable
HAZARD STATEMENTS	Not Applicable

RECOMMENDED SAFETY PRECAUTIONS

INJURY PREVENTION	Good industrial hygiene practices should be followed when handling this material. Avoid contact with eyes and skin. Do not breathe dusts/fumes/vapors of this material. Wash thoroughly after handling. When necessary, use appropriate personal protective equipment to prevent injury.
EMERGENCY RESPONSE	IF IN EYES: rinse cautiously with water for 15 minutes. Remove contact lens, if present and easy to do. Continue rinsing. Seek medical attention if necessary
	IF ON SKIN: gently wash with plenty of soap and water. Call a POISON CONTROL CENTER or doctor if symptoms develop or you feel unwell.
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 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

FOR INFORMATION REGARDING ENVIRONMENTAL GHS CLASSIFICATION, REFER TO SECTION 12 BELOW

SECTION 3: COMPOSITION/INFORMATION on INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration (%)
Pentanoic acid, 2-methyl-, 2- methylpentyl ester	Pentanoic acid, 2-methyl-, 2- methylpentyl ester	90397-38-9	~ 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. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.
SPILL CLEANUP PROCEDURESAbsorb spill with inert material. Shovel material into appropriate cor disposal. Wear appropriate protective equipment and clothing during Thoroughly wash the area with water after a spill or leak clean-up. Di absorbent in an approved industrial waste landfill.	
REQUIRED EQUIPMENT	No additional information on equipment.
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. Keep away from sources of ignition.		
STORAGE REQUIREMENTS	Do not store this material in open or unlabeled containers. To protect purity, store under dry nitrogen gas. Eliminate all sources of ignition.		

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

СН	EMICAL	CASRN	PERCENT	LIMITS	AGENCY
OSHA: No exposure limits established for this product					
ACCUL	NI	Reality of the second second second second	de tre service als seats		

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	рН	No information available
VAPOR DENSITY	No data available	VAPOR PRESSURE	No data available
EVAPORATION RATE	No data available	RELATIVE DENSITY	0.86g/mL @ 25°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)	99°C Cleveland Open Cup	AUTO-IGNITION TEMPERATURE	No data available
UPPER EXPLOSIVE LIMIT	No data available	LOWER EXPLOSIVE LIMIT	No data available

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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	No significant eye irritation can be expected from contact with this product.
SKIN EFFECTS	Prolonged and/or repeated skin contact may result in mild irritation or redness.
ACUTE ORAL EFFECTS (INGESTION)	Not a likely route of entry.
ACUTE INHALATION EFFECTS	This product may cause slight irritation to the respiratory system.
TARGET ORGANS	No known effects.
CHRONIC EFFECTS	
TERATOLOGY	No data available for this product.
REPRODUCTIVE and DEVELOPMENTAL TOXICITY	No information available.

CARINOGENICITY

CHEMICAL	NAME	DATA	AGENCY	LIST
None of the componer	None of the components of this product are listed on the OSHA Possible or Select Carcinogens Lists.			
None of the componer	nts of this product a	re listed on the ACGIH Carcino	gens List.	
No limits established for	or this product by th	ne International Agency for Res	search on Can	cer (IARC).
None of the componer	nts of this product a	re listed on the NTP Known or	Suspected Ca	rcinogens List.
LETHAL DOSE (LD50 &	LC50) DATA			
LD50 ORAL	LD50 Oral Rat > 2	500 mg/kg		
MEDICAL CONDITIONS AGGRAVATED by EXPOSURE	No information av	vailable.		
ROUTES of ENTRY	Routes of entry fo inhalation.	or solids and liquids include eye	e and skin con	tact, ingestion and

SECTION 12: ECOLOGICAL INFORMATION

UN GHS AQUATIC TOXICITY CLASSIFICATION INFORMATION

AQUATIC TOXICITY CLASSIFICATION	Not classified as hazardous to aquatic environment
SIGNAL WORD	Not applicable
HAZARD PICTOGRAM	Not applicable
HAZARD STATEMENT	Not applicable
PREVENTION	Not applicable
RESPONSE	Not applicable
DISPOSAL	Not applicable

ADDITIONAL ENVIRONMENTAL INFORMATION

AQUATIC TOXICITY 96 hr LC50 Zebrafish > 100 mg/L

ECOTOX. 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.
BIOACCUMLATION	No information available

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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		

No limits established for this product.

SECTION 14: TRANSPORT INFORMATION

	US DOT	ΙΑΤΑ	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
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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	Registry No. 2-782
EINECS	Europe	Yes	Registry No. 291-418-4
ELINCS	Europe	No	
IECSC	China	Yes	
PICCS	Philippines	Yes	
ECL	Korea	Yes	Registry No. KE-24711
AICS	Australia	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 CO	MPONENTS	CASRN	PERCENT	REPORTING LIMIT
No limits established	for this			
product.				
	ACUTE	No		
EPCRA SECTION	CHRONIC	No		
311/312 CLASSIFICATION	FIRE	No		
	PRESSURE	No		
	REACTIVE	No		

OTHER FEDERAL REGULATIONS

The following components are identified under the Clean Air Act HON-Rule for SOCMI chemicals: COMPONENT NAME CASRN

No regulated components

The following components are identified under the Clean Air Act (VOCs in SOCMI 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 ostablished for this produc	~ t	

No limits established for this product.

STATE RIGHT-TO-KNOW INFORMATION:

COMPONENT NAME CASRN STATE List Name	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 California, Florida, Massachusetts, Michigan, Pennsylvania, or New Jersey.

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	5/7/2015 8:52:24 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	
	1-3, Bunka 2-chome, Sumida-ku	
	Tokyo, Japan 131-8501	
	Phone: 011-81-3-5630-7700	

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD RATINGS

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

Hazardous Material Identification System (HMIS) Hazard Ratings

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

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

COMPONENT	CASRN	PERCENT	MINIMUM
COMPONENT	CASKIN	PERCENT	CONCENTRATION

No regulatory limits established for this product.

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END OF DOCUMENT