



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	KALCOL 4098
PRODUCT CASRN	112-72-1
PRODUCT DESCRIPTION	Aliphatic fatty alcohol
SDS DOCUMENT No.	267568
RECOMMENDED USES	Product is intended for use as a raw material in chemical manufacturing

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 2A
SIGNAL WORD	Warning
HAZARD STATEMENTS	Causes serious eye irritation.

**HAZARD
PICTOGRAMS**



RECOMMENDED SAFETY PRECAUTIONS

INJURY PREVENTION	Wash thoroughly after handling. Wear chemical-resistant gloves and clothing, eye protection and face protection.
EMERGENCY RESPONSE	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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

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

SECTION 3: COMPOSITION/INFORMATION on INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration (%)
1-Tetradecanol	Myristyl alcohol	112-72-1	98.0 - 100.0

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	Symptoms can include irritation, redness, scratching of the cornea, and tearing. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
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 | 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. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Dike the spilled material, where this is possible. Block any potential routes to water systems.
SPILL CLEANUP PROCEDURES	Do not allow the spilled product to enter public drainage system or open water courses. Wear appropriate protective equipment and clothing during clean-up. Shovel the material into waste container. Thoroughly wash the area with water after a spill or leak clean-up.
REQUIRED EQUIPMENT	No additional information on equipment.
ADDITIONAL INFORMATION	No other spill procedures necessary.

SECTION 7: HANDLING AND STORAGE

HANDLING REQUIREMENTS	As with all chemicals, good industrial hygiene practices should be followed when handling this material. Avoid contact with skin and eyes. Wash thoroughly after handling. Keep this product from heat, sparks, or open flame.
STORAGE REQUIREMENTS	Keep the container tightly closed and in a cool, well-ventilated place. Eliminate all sources of ignition. If product is stored in bulk, nitrogen padding is recommended.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
<u>PERSONAL PROTECTIVE EQUIPMENT</u>	
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
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	Slightly characteristic odor
ODOR THRESHOLD	No data available	pH	No applicable
VAPOR DENSITY	No data available	VAPOR PRESSURE	No data available
EVAPORATION RATE	No data available	RELATIVE DENSITY	0.82 @ 40°C
MELTING POINT (°C)	37.0°C	WATER SOLUBILITY	Insoluble in water
INITIAL BOILING POINT (°C)	296.0°C	BOILING RANGE (°C)	No data available
PARTITION COEFFICIENT (N-OCTANOL/WATER)	No data available	VISCOSITY	16mPa-s @ 40°C
DECOMPOSITION TEMPERATURE	No data available	FLAMMABILITY CLASSIFICATION	CLASS IIIB
FLASH POINT (°C)	156°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) | 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 | No skin irritation can be expected from single short-term exposure to this product. Prolonged or repeated contact may produce some irritation.

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

ACUTE INHALATION EFFECTS | Inhalation of vapors/fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing or difficulty breathing.

TARGET ORGANS | No known effects.

CHRONIC EFFECTS

MUTAGENICITY | Ames Test (TA98, TA100, TA1535, TA1537, TA1538): Negative

TERATOLOGY | No data available for this product.

REPRODUCTIVE and DEVELOPMENTAL TOXICITY | No information available.

CARINOGENICITY

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 > 5000 mg/kg

LD50 DERMAL | LD50 Dermal Rabbit > 5 g/kg

MEDICAL CONDITIONS AGGRAVATED by EXPOSURE | No information available.

ROUTES of ENTRY | Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation.

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: Irritant
 Skin Sensitization: Guinea Pig, Guinea Pig Maximization Test: Negative

SECTION 12: ECOLOGICAL INFORMATION

UN GHS AQUATIC TOXICITY CLASSIFICATION INFORMATION

AQUATIC TOXICITY CLASSIFICATION | Chronic 1

SIGNAL WORD | Warning

HAZARD PICTOGRAM



HAZARD STATEMENT | Very 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	96 hr LC50 Rainbow Trout > 1 mg/L 96 hr EC50 Green Algae > 10 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	Closed bottle test (BODIS-test) : 92 % (28 days)
BIOACCUMULATION	No information available

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	UN3077	UN3077	UN3077

UN PROPER SHIPPING NAME	Environmentally hazardous substances, solid, n.o.s.	Environmentally hazardous substances, solid, n.o.s.	Environmentally hazardous substances, solid, n.o.s.
TECHNICAL NAME	myristyl alcohol	myristyl alcohol	myristyl alcohol
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	Yes	
NDSL	Canada	No	
ENCS	Japan	Yes	2-217
EINECS	Europe	Yes	204-000-3
ELINCS	Europe	No	
IECSC	China	Yes	
PICCS	Philippines	Yes	
ECL	Korea	Yes	KE-33362
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 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 SOCMIs chemicals:

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Air Act (VOCs in SOCMIs 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
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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 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	HAZEMS
SDS VERSION DATE	4/22/2015 12:50:42 PM
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Cagayan de Oro City PHILIPPINES
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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
Myristic alcohol	112-72-1	98.0 - 100.0	1 %

END OF DOCUMENT