

Kao Specialties Americas LLC

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**Material Safety Data Sheet**

Effective Date: 05-04-2010

Supercedes: 06-26-2009

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME POLLENAL II
MSDS ID K00802
PRODUCT DESCRIPTION 2-Cyclohexyl propanal

MANUFACTURER

Kao Corporation
1-3, Bunka 2-chome, Sumida-ku
Tokyo, Japan 131-8501
Phone: 011-81-3-5630-7700

DISTRIBUTOR

Kao Specialties Americas LLC
243 Woodbine Street
P. O. Box 2316
High Point, NC 27261
Telephone: 1-336-884-2214

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

II. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT NAME	CAS NUMBER
2-Cyclohexyl propanal	2109-22-0

If this table is blank, then this product does not contain any regulated substances.

• See Section VIII for exposure guidelines and Section XV for State Right to Know Information

III. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:	No hazard in normal industrial use. Use good hygienic practices.
APPEARANCE:	Clear, colorless liquid
ODOR:	Natural, fresh, green, fruity odor

Hazardous Material Identification System (HMIS) Rating:

HEALTH	1	FLAMMABILITY	2
REACTIVITY	0	PERSONAL PROTECTION	D

Potential Health Effects

Eye	This product may cause irritation to the eyes.
Skin Contact	May cause skin irritation or allergic skin sensitization.
Ingestion	Not a likely route of entry.
Inhalation	Low vapor pressure makes inhalation unlikely at standard temperatures and pressures.

Target Organs No known effects.

Chronic Effects:

Carcinogenicity: See Section XI.

IV. 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.

NOTES TO PHYSICIAN:

Provide general supportive measures and treat symptomatically.

V. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT:	172 deg. F
METHOD:	TAG CLOSED CUP
UPPER FLAMMABLE LIMIT:	Not Applicable
LOWER FLAMMABLE LIMIT:	Not Applicable
FLAMMABILITY CLASSIFICATION:	CLASS IIIA

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:

Vapors can travel to a source of ignition and flash back.

EXTINGUISHING MEDIA:

Foam (preferred), dry chemical, water.

FIRE FIGHTING INSTRUCTIONS:

Firefighters should wear full protective clothing including self contained breathing apparatus.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATING:

Health	1	Flammability	2
Reactivity	0	Special	

VI. ACCIDENTAL RELEASE MEASURES

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

SMALL SPILL

Containment Techniques	Dike the spilled material, where this is possible.
Cleanup Procedures	Collect the spilled material with an inert absorbent such as sand or vermiculite. Place in properly labeled closed container.
Equipment	Shovel the material into waste container.
Other Emergency Advice	No other spill procedures necessary.

LARGE SPILL

Containment Techniques	Dike the spilled material, where this is possible.
Cleanup Procedures	No other spill procedures necessary.
Equipment	No additional information on equipment.
Other Emergency Advice	No other spill procedures necessary.

Evacuation Procedure: Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering.

VII. HANDLING AND STORAGE

Handling: Do not get this material in your eyes, on your skin, or on your clothing.
Storage: Keep this material in a cool, dark, well-ventilated place.

VIII. 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 or a full 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 NAME	CAS #	PERCENT	LIMITS	AGENCY
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The following components are listed on the Canadian WHMIS Ingredient Disclosure List (IDL):

Component	CAS #	Percent	Minimum Concentration
Butylated hydroxytoluene (BHT)	128-37-0	<0.1	1 %

IX. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, colorless liquid
ODOR: Natural, fresh, green, fruity odor
SOLUBILITY IN WATER: Insoluble in water
pH: No information available
SPECIFIC GRAVITY: 0.913 to 0.923 g/mL at 20 deg C
VOLATILES, % BY WEIGHT: Not evaluated
FREEZE POINT (DEGREES C) <-27 deg C
MELTING POINT (DEGREES C) <-27 deg C
VOLATILE ORGANIC COMPOUNDS(%VOC'S) 0
VAPOR PRESSURE: 75.2 to 88.2 mmHg at 25 deg C

Additional Information:

Obtained from natural sources by physical means:	No
Reaction product	Yes
Fragrance substance	Yes
Refractive Index	1.457

X. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions.
CONDITIONS TO AVOID: None known
HAZARDOUS DECOMPOSITION: None known.
PRODUCTS:
HAZARDOUS POLYMERIZATION: Will not occur.

XI. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

EYE EFFECTS	This product may cause irritation to the eyes.
SKIN EFFECTS	May cause skin irritation or allergic skin sensitization.
ACUTE ORAL EFFECTS (INGESTION)	Not a likely route of entry.
ACUTE INHALATION EFFECTS	Low vapor pressure makes inhalation unlikely at standard temperatures and pressures.
SUBCHRONIC EFFECTS	No known effects.

CHRONIC EFFECTS

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

CARCINOGENICITY

CHEMICAL NAME	DATA	AGENCY
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LD50 ORAL for Product

>2000 mg/kg (Rat)
>5000 mg/kg (Rat)
Subacute toxicity (Rat, 28 day): NOEL = 150 mg/kg/day

LD50 DERMAL for Product

>2000 mg/kg (Rat)

LC50 INHALATION GAS for Product

>5.32 mg/L (Rat)
SELECTED LD50's for ingredients
Chemical Name LD50/LC50

2-Cyclohexyl propanal	>2000 mg/kg female; >5000 mg/kg male
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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 Irritation: Guinea Pig, Mild irritant
Skin Irritation: Rabbit, 100%, 4 hr. semi-occluded application (OECD404): Mild irritant
Eye Irritation: Rabbit, 100%, 4 hr. semi-occluded application (OECD404): Mild irritant
Chromosomal aberration test (CHL cells): (Absence of S9 mix): Negative
Chromosomal aberration test (CHL cells): (Presence of S9 mix: D20=1.079 mg/kg): Negative
Micronucleus test: Negative

XII. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION	None determined
ENVIRONMENTAL INFORMATION	No data available for this product.
BIOLOGICAL OXYGEN DEMAND (BOD5), g/g	No data available
CHEMICAL OXYGEN DEMAND (COD), g/g	No data available

Ecotoxicity Data:

Ingredient Name: 2-Cyclohexylpropanal
Species: Fish (LC50)
Period: 96 hrs.
Result: 3.2 mg/L

Ingredient Name: 2-Cyclohexylpropanal
Species: Daphnia (EC50)
Period: 48 hrs.
Result: 1.2 mg/L

XIII. 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 Container / Container Rinsate: Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

XIV. TRANSPORTATION INFORMATION

DOT SHIPPING INFORMATION

Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
Technical Name (if n.o.s. description): 2-Cyclohexyl propanal
UN/NA Number: UN3082
Hazard Class: 9
Packing Group: III
Shipping Name, if RQ shipment: Not applicable
Reportable Quantity (RQ lbs): No reportable quantity for this product
Emergency Response Guidebook: 171
Placard/Labels required: Miscellaneous

INTERNATIONAL INFORMATION

PROPER SHIPPING NAME
IMO Environmentally hazardous substances, liquid, n.o.s.
IATA/ICAO Environmentally hazardous substances, liquid, n.o.s.
Marine Pollutant MARINE POLLUTANT

XV. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT: This product is listed on the U.S. EPA TSCA Inventory.
TSCA EXPORTING REQUIREMENTS: No limits established for this product.

INTERNATIONAL CHEMICAL INVENTORIES:

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

DSL (Canada)	No
NDSL (Canada)	Yes
ENCS (Japan)	Yes
EINECS (Europe)	No
ELINCS (Europe)	Yes
SWISS (Switzerland)	No
PICCS (Philippines)	Yes
ECL (Korea)	No
AICS (Australia)	Yes

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT TITLE III;

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW, PER 40 CFR 355, APP. A:

EHS Components	CAS Number	Percent	TPQ lbs and RQ
No limits established for this product.			

313 Components	CAS Number	Percent	Reporting Limit
No limits established for this product.			

SECTION 311/312 CLASSIFICATION:

Acute:	No
Chronic:	No
Fire:	No
Pressure:	No
Reactive:	No

OTHER FEDERAL REGULATIONS

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

Chemical Name	CAS Number
No regulated components	

The following chemical components are identified under the Clean Air Act (VOC's in SOCM I)

Chemical Name	CAS Number
No regulated components	

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

Chemical Name	CAS Number
No regulated components	

The following chemical components are identified under the Clean Air Act as HON-Rule Hazardous
Air Pollutants (HAP's):

Chemical Name	CAS Number
No regulated components	

STATE RIGHT TO KNOW INFORMATION:

The components of this product are listed on the following State Right to Know Lists:

COMPONENT NAME	CAS #	STATE LIST
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None of the components of this product are listed
on the California Proposition 65 lists.

XVI. ADDITIONAL INFORMATION

IFRA CODE OF PRACTICE for	FRAGRANCE COMPOUNDS
Prohibited Ingredient	No
Restricted Ingredient	No
Permissible Quantity	Not applicable
Specification Limited Ingredient	
Other information:	
Harmonized Tariff Number:	Not evaluated
GRAS Listed:	No

The information below is believed to be accurate but is not warranted to be, whether origination with the manufacturer, or not. Recipients are advised to confirm in advance that the information is current and applicable to their situation. No warranty is expressed or implied. Since conditions of use are beyond the manufacturer's control, user assumes all risk and responsibility.

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