

Kao Corporation, S.A.

Member of KAO CHEMICALS EUROPE

SAFETY DATA SHEET

Conforms to 91/155/EEC - 2001/58/EC



POLLENAL II

1. Identification of the substance/preparation and of the company/undertaking

Product name : POLLENAL II
Code : 3009055
Chemical product name : 2-cyclohexylpropanal
Manufacturer : Kao Corporation
1-3, Bunka 2-Chome, Sumida-ku, Tokyo 131-8501 - JAPAN
Tel. +81 3 5630 7700 . Fax +81 3 5630 7889
Supplier : Kao Corporation, S.A.
Puig dels Tudons, 10 - 08210 BARBERÀ DEL VALLÈS (Barcelona)
- SPAIN
Telf. 937399 300. Fax 937399 333
Emergency telephone number : +81-3-5630-7700
Material uses : Perfume oil mixtures and blends consisting of products ready for use in finished perfume bases.

2. Composition/information on ingredients

Substance/preparation : Substance

Hazardous ingredients :

Chemical name*	CAS No.	%	EC number	Classification
2-cyclohexylpropanal	2109-22-0	25 - 100	ELINCS.	R43 N; R51/53
See section 16 for the full text of the R Phrases declared above				

Following European Directives and National Regulations, only the dangerous ingredients are disclosed in the above table.

One or several of the ingredient(s) mentioned above are disclosure in Annex I of the Directive 67/548/EC, with the following EC number(s):

605-029-00-8 412-270-0

* Occupational Exposure Limit(s), if available, are listed in section 8

3. Hazards identification

The substance is classified as dangerous according to Directive 67/548/EEC and its amendments.

Classification	: R43 N; R51/53
Human health hazards	: May cause sensitization by skin contact.
Environmental hazards	: Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

See section 11 for more detailed information on health effects and symptoms.

4. First aid measures

First aid measures

Inhalation	: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Ingestion	: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.
Skin contact	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

Extinguishing media	: Use an extinguishing agent suitable for surrounding fires.
Special exposure hazards	: No specific hazard.
Fire-fighting procedures	: This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: These products are carbon oxides (CO, CO ₂).
Special protective equipment for fire-fighters	: Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

6. Accidental release measures

Personal precautions	: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8).
Environmental precautions and clean-up methods	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling	: Avoid contact with skin and clothing. Avoid contact of spilled material and runoff with soil and surface waterways. Wash thoroughly after handling.
Storage	: Keep container tightly closed. Keep container in a cool, well-ventilated area.
Packaging materials	
Recommended	: Use original container.

8. Exposure controls/personal protection

Exposure controls

Occupational exposure controls	: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Respiratory protection	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hand protection	: Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. >8 hour(s) (breakthrough time): disposable vinyl
Eye protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles, safety glasses with side shields
Remark	: The penetration-time of the recommended gloves depend not only on the material. Also other factors may have influence on the penetration-time, as the thickness of them or the specific use or conditions (temperature). In any case, certificate materials (for example following EN 374) should be selected. Please ask your supplier, if the gloves are suitable for the intended use.
Skin protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Body: Recommended: lab coat, overall Feet: Recommended: neoprene

9. Physical and chemical properties

Appearance

Physical state	(20°C) : Liquid.
Color	: Clear.
Odor	: Natural, Fresh., Green.
Boiling point	: 196.5 to 200 °C
Melting point	: <-27 °C (at 101.3kPa(Freezing Point))
Flash point	: Closed cup: 78°C (172.4°F). (TCC)
Vapor pressure	: 75.2 to 88.2 mmHg (25 °C)
Density	: 0.913 to 0.923 g/cm ³ (20 °C) (Automatic densitymeter)
Solubility	: Soluble in methanol. Very slightly soluble in cold water.
Dispersion properties	: See solubility in water, methanol.
Viscosity (Kinetic)	: 0 cSt

10. Stability and reactivity

Stability	: The product is stable.
Materials to avoid	: Extremely reactive or incompatible with oxidizing agents.
Hazardous decomposition products	: These products are carbon oxides (CO, CO ₂).
Other Information	: When burning can generate carbon dioxide and carbon monoxide.

11. Toxicological information

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin contact : May cause sensitization by skin contact.
Contact sensitisation : Hazardous in case of skin contact (sensitizer).
Eye contact : No known significant effects or critical hazards.

Acute toxicity

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
2-cyclohexylpropanal	LD50	>5000 mg/kg	Oral	Rat
	LD50	>2000 mg/kg	Oral	Rat
	LD50	>2000 mg/kg	Dermal	Rat
	LC50	>5.32 mg/l (4 hour(s))	Inhalation	Rat

- Carcinogenicity** : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Inhalation** : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin : No known significant effects or critical hazards.

12. Ecological information

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
2-cyclohexylpropanal	Fish (LC50)	96 hour(s)	3.2 mg/l
	Daphnia (EC50)	48 hour(s)	1.2 mg/l

<u>Ingredient name</u>	<u>Persistence/degradability</u>						<u>Bioaccumulative potential</u>		
	<u>BOD₅</u>	<u>COD</u>	<u>ThOD</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>	<u>Biodegradability</u>	<u>LogP_{ow}</u>	<u>BCF</u>	<u>Potential</u>
2-cyclohexylpropanal	110000 ppm								

Other adverse effects : Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Additional information : The test substance cannot be termed as readily biodegradable. Prevent contamination of soil, ground and surface water.

13. Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste

14. Transport information

International transport regulations

POLLENAL II						
Regulatory Information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	UN3082	Environmentally hazardous substance, liquid, n.o.s. (2-cyclohexylpropanal)	9	III		Hazard identification number 90 Remarks Packaging suitable for liquids. ADR/RID Classification Code M6
IMDG Class	UN3082	Environmentally hazardous substance, liquid, n.o.s. (2-cyclohexylpropanal)	9	III		Emergency schedules (EmS) F-A, S-F Remarks See flow chart supplement IMDG Code
IATA-DGR Class	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (2-cyclohexylpropanal)	9	III		Quantity limitation - Passenger Aircraft - Limited quantity 30 L Packaging instruction 914, 914, Y914

15. Regulatory information

EU Regulations

Hazard symbol(s)



Irritant, Dangerous for the environment

Risk Phrases

: R43- May cause sensitization by skin contact.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

: S24- Avoid contact with skin.
S37- Wear suitable gloves.
S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains

: 2-cyclohexylpropanal

Product use

: Classification and labeling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.
- Industrial applications.

Other information

: Not available.

Other EU regulations

Additional warning phrases

: Not applicable.

Restriction to market directive

: Not applicable.

EC Statistical classification (Tariff Code)

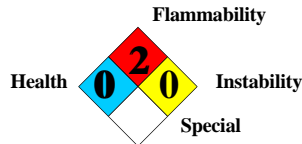
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Germany

Hazardous incident ordinance : No.
 Ordinance on combustible liquids : Class: A III
 Technical instruction on air quality control : Not available.
 Hazard class for water : 2

U.S.A.

National Fire
 Protection
 Association
 (U.S.A.)

**16. Other information**

Indicates information that has changed from previously issued version.

Other information : Environmental hazards
 (EEC Directive 84/449/EEC, Annex V, method C1), (EEC Directive 84/449/EEC, Annex V, method C2)
 Full text of R phrases referred to in Sections 2 and 3 : R43- May cause sensitization by skin contact.
 R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 Full text of classifications referred to in Sections 2 and 3 : N - Dangerous for the environment.
 Key data sources : Not available.
 Revision comments : Not available.

History

Product code : 3009055
 Date of printing : 14/03/2005
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 Date of previous issue : 21/07/2004
 Version : 6
 Form : KCE SDS F EU

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.