

UV-resistant CLEAR OIL

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name and/or code : **UV-resistant CLEAR OIL 8300**
 Manufacturer : Biohouse (Shanghai) Co., Ltd.
 16E, Building #2, 515 Yishan Rd., Shanghai, PRChina
 Emergency phone number : 0086-21-6451 7227
 e-Mail : info@biohouse.cn
 Distributor : Not available.
 Product use : Wood preservatives

2. HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : R66
 R52/53
 Human health hazards : Repeated exposure may cause skin dryness or cracking.
 Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 Additional warning phrases : Contains pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

Chemical name	CAS #	%	EU no.	Classification
distillates (petroleum), hydrotreated light	64742-47-8	25 - 50	265-149-8	Xn; R65 R66 [1] [2]
distillates (petroleum), hydrotreated light	64742-47-8	10 - 25	265-149-8	Xn; R65 R66 [1] [2]
pentamethyl-4-piperidyl sebacate	41556-26-7	0 - 1	255-437-1	R43 N; R50/53 [1]
See section 16 for the full text of the R-phrases declared above				

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in section 8.

4. FIRST AID MEASURES

First aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use solvents or thinners.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

- Extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
Not to be used : water jet.
- Recommendations** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- Hazardous combustion products** : No specific data.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.
- Spill** : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses. Preferably clean with a detergent. Avoid using solvents. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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

7. HANDLING AND STORAGE

- Handling** : Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits.

In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep container tightly closed. Keep away from heat, sparks and flame. No sparking tools should be used.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Put on appropriate personal protective equipment (see section 8).

Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one.

Comply with the health and safety at work laws.

- Storage** : Store in accordance with local regulations. Observe label precautions. Store in a cool, well-ventilated area away from incompatible materials and ignition sources.

Keep away from: oxidizing agents, strong alkalis, strong acids.
No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Do not empty into drains.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering measures** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
distillates (petroleum), hydrotreated light	EH40-WEL (United Kingdom (UK), 6/2005). STEL: 850 mg/m ³ , (as turpentine (150 ppm)) 15 minute(s). Form: Vapor TWA: 566 mg/m ³ , (as turpentine (100 ppm)) 8 hour(s). Form: Vapor
distillates (petroleum), hydrotreated light	EH40-WEL (United Kingdom (UK), 6/2005). STEL: 850 mg/m ³ , (as turpentine (150ppm)) 15 minute(s). Form: Vapor TWA: 566 mg/m ³ , (as turpentine (100 ppm)) 8 hour(s). Form: Vapor

Exposure controls/personal protection

- Occupational exposure controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation 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.
Recommended: In situations where misting or flying may occur, use appropriate certified respirators. (as filter A)
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
4-8 hours (breakthrough time): Viton , PVC gloves.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- 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, gases or dusts. Recommended: Use safety goggles.
- 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.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : Liquid.
- Odor** : Slight
- Color** : Yellow.
- Flash point** : Closed cup: >63°C (>145.4°F)
- Boiling point** : >250°C (>482°F)
- Explosion limits** : Lower: .9%
Upper: 8%
- Vapor pressure** : 0.071 kPa (0.53 mm Hg)
- Vapor density** : >1 [Air = 1]
- Viscosity** : Kinematic (40°C (104°F)): >0.07 cm²/s (>7 cSt)
- Relative density (kg/L)** : <1

10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions (see section 7).

Hazardous decomposition products: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

11. TOXICOLOGICAL INFORMATION

There is no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage.

Contains pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
distillates (petroleum), hydrotreated light	LD50 Dermal	Rabbit	>3156 mg/kg	-
	LD50 Oral	Rat	>6312 mg/kg	-
distillates (petroleum), hydrotreated light	LD50 Dermal	Rabbit	>3156 mg/kg	-
	LD50 Oral	Rat	>6312 mg/kg	-
	LC50 Inhalation Vapor	Rat	>5000 ppm	24 hours
pentamethyl-4-piperidyl sebacate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

12. ECOLOGICAL INFORMATION

There is no data available on the preparation itself. Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 2 and 15 for details.

Aquatic ecotoxicity

Ingredient name	Test	Result	Species	Exposure
distillates (petroleum), hydrotreated light	-	Acute EC50 >1000 mg/L	Daphnia	48 hours
	-	Acute IC50 >1000 mg/L	Algae	72 hours
	-	Acute LC50 5900 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus	4 days
	-	Acute LC50 2900 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
distillates (petroleum), hydrotreated light	-	Acute EC50 >1000 mg/L	Daphnia	48 hours
	-	Acute IC50 >1000 mg/L	Algae	72 hours
	-	Acute LC50 2600 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	4 days
	-	Acute LC50 2400 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	4 days
	-	Acute LC50 2200 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus	4 days
	-	Acute LC50 5900 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus	4 days
	-	Acute LC50 2900 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
pentamethyl-4-piperidyl sebacate	-	Acute EC50 20 mg/L	Daphnia	24 hours
	-	Acute LC50 7.9 mg/L	Fish - Rainbow trout (oncorhynchus mykiss)	96 hours
	-	Acute LC50 0.97 mg/L	Fish - Bluegill sunfish (lepomis macrochirus)	96 hours

Ecological information

Biodegradability

Conclusion/Remark : Not available.

Ingredient name	Aquatic half-life	Photolysis	Biodegradability
8300	-	-	Inherent
distillates (petroleum), hydrotreated light	Fresh Water 25.2 days	-	Readily
distillates (petroleum), hydrotreated light	Fresh Water 25.2 days	-	Readily

Bioaccumulative potential

Ingredient name	LogP _{ow}	BCF	Potential
distillates (petroleum), hydrotreated light	3.5 to 4.7	-	high
distillates (petroleum), hydrotreated light	3.5 to 4.7	-	high
pentamethyl-4-piperidyl sebacate	2.4 to 2.8	-	low

13. DISPOSAL CONSIDERATIONS

Do not allow to enter drains or watercourses.
 Dispose of according to all federal, state and local applicable regulations.

- European waste catalogue (EWC)** : The European Waste Catalogue classification of this product, when disposed of as Waste, is:13 08 99* wastes not otherwise specified. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.					
IATA Class	Not regulated.	-	-	-		-

PG* : Packing group
 This product is not regulated for carriage according to ADR/RID, IMDG, ICAO/IATA.

15. REGULATORY INFORMATION

- EU regulations** : The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:
- Risk phrases** : R66- Repeated exposure may cause skin dryness or cracking.
 R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Safety phrases** : S24- Avoid contact with skin.
 S56- Dispose of this material and its container at hazardous or special waste collection point.
- Europe inventory** : Europe inventory: All components are listed or exempted.
- Other EU regulations**
- Additional warning phrases** : Contains pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.
- CN code** : 3805 90 90
- Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

16. OTHER INFORMATION

- CEPE Classification** : 1
- Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK)** : R65- Harmful: may cause lung damage if swallowed.
 R43- May cause sensitization by skin contact.
 R66- Repeated exposure may cause skin dryness or cracking.
 R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information in this Safety Data Sheet is required pursuant to EU Directive 91/155/EEC and its amendments.

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties