

MATERIAL SAFETY DATA SHEET

(GB/T 16483、GB/T 17519)

Product name: EW-WBP993 Flame Pearl
Revised date: Mar 21, 2020

MSDS No.: MS-QWEW-AWBP993
Version No.: 3.0

SECTION 1 Product and company identification

Product name: EW-WBP993 Flame Pearl
Manufacturer: YATU Advanced Materials Co., LTD.
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E-mail: ytchem@ytchem.com.cn Postcode: 529738
Enterprise Emergency contact number: 0750-8771188
National Emergency contact number: 0532-83889090
Product usage: Additive for automotive refinishing. Professional use only.

SECTION 2 Hazards identification

Emergency overview:

The mixtures of resin pigments solvent and water. Viscous liquid, non-flammable. Do not let fire water flow into sewers and rivers. The packaging container is not a pressure container. Do not use pressure to empty the container. Store in a container of the same material as the original container.

The mixture is hazards according to the GHS categories as below.

GHS hazards categories

Flammable liquid	category 4	H277 Flammable liquid
Skin irritation	(category 3)	H316 Mild skin irritation
Eye irritation	(category 2A)	H319 Strong eye irritation

Label elements:

Signal word: Warning

Hazard label:



Precaution:

P264	Wash thoroughly after work.
P270	Do not eat, drink water or smoke when using this product.
P280	Wear protective glove/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapor/spray.
P271	Use only outdoors or in a well-ventilated area.

Incident response:

P301+P312	If swallowed accidentally and feel unwell, call detoxification center or seek medical attention.
P330	Wash your mouth.
P302+P352	Wash it with running water thoroughly if skin contamination happens.
P312	Call detoxification center or seek medical attention if feel unwell.
P362+P364	Take off contaminated clothes, use them after thoroughly cleaning.
P332+P313	Seek for medical attention if skin irritation happens.

- P305+P351+P338 Wash it with running water for few minutes if it got into eyes. Take out the contact lenses if they are easy to remove. Keep washing with running water.
- P337+P313 Seek medical attention if eye irritation still exists.
- P304+P340 If inhaled by mistake: Move the person to a place with fresh air and maintain a comfortable position for breathing.
- P370+P378 In case of fire: Use dry powder, foam or carbon dioxide to extinguish.
- P391 Collect spillage.
- Safe storage:
P403+P235 Store in a well-ventilated place. Keep the temperature low.
- Disposal:
P501 Dispose of contents/container under local law.

Physical and chemical hazards:

Non-flammable. Do not let fire water flow into sewers and rivers. The packaging container is not a pressure container. Do not use pressure to empty the container. Store in a container of the same material as the original container. Keep away from oxidants, strong bases and strong acids to prevent exothermic reactions. This product is chemically stable.

Health hazards:

It is hazardous if inhaled or on skin. It causes skin irritation and severe eye irritation, and it may cause respiration tract irritation.

Environmental hazards:

No obvious known effects or serious dangers.

Section 3 Composition/information on ingredients

Substance /mixture: mixture

product ingredient:

Chemical name	CAS No.	(%)
Isopropanol	67-63-0	1-5
2-Butoxyethanol	111-76-2	1-5
n-Pentanol	71-41-0	1-5

Non-hazard component: 80-90%

Section 4 First aid measures

Description of first aid measures:

Inhalation: Remove to fresh air. Keep person warm and at rest in a position comfortable for breathing.

If breathing is irregular or if breathing has stopped, trained personnel should provide artificial respiration or oxygen. If the mouth-to-mouth breathing method is used for rescue, it may cause danger to the rescuer. If you lose consciousness, put the victim in a recovery position and seek medical treatment. If symptoms persist or worsen, seek medical attention.

Skin contact: Take off immediately all contaminated clothing. Rinse skin thoroughly with soap water. If irritation gets worse (redness, rash, blister), get medical attention immediately.

Eye contact: Wash carefully with running fresh water for minutes if got into eyes. Remove contact lenses, irrigate copiously with clean, fresh water for at least 15 minutes. Seek immediate medical advice.

Ingestion: Go to the hospital if ingestion. Keep the Person warm and comfortable. Avoid vomiting.

The most important acute and delayed symptoms

Swallowed: If swallowed, gargle, vomiting is prohibited. Seek medical attention immediately.

The most important acute and delayed symptoms:

Inhalation: May cause irritation on nose and throat. If this product is mixed with isocyanate hardener (see it's MSDS) it may have the following health effects. Exposure to isocyanates may cause respiratory sensitization. This effect may be permanent. Symptoms include asthma-like reactions, as well as shortness of breath, wheezing, coughing or permanent lung sensitivity. This effect may occur within a few hours of exposure. Repeated overexposure may cause permanent lung damage. Individuals with lung or respiratory problems or a history of isocyanate allergies should avoid exposure to steam or spray of this product.

Swallowed: May cause gastrointestinal discomfort.

Skin or eye contact: May cause eye irritation or burns. Repeated or prolonged liquid contact may cause skin irritation, with discomfort and dermatitis. If this product is mixed with isocyanate, skin contact may cause skin irritation.

Advice for protecting rescuers: no action can be taken without proper training.

Special note for doctors: Please see Part 3 and Part 11 for the hazardous components in this product.

Section 5 Firefighting measures

Proper extinguishing media: Extinguish with dry powder, sand, foam or carbon dioxide fire extinguishing agent. Do not spray directly with water.

Hazardous characteristics: Non-flammable. Do not let fire water flow into sewers and rivers. The packaging container is not a pressure container. Do not use pressure to empty the container. Store in a container of the same material as the original container.

Special protective equipment and procedure: Firefighters must wear air-breathing respirators, full body firefighting suits, and extinguish the fire in the upwind direction.

Contain and handle the liquid after fire extinguishing to prevent environmental pollution.

Section 6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures:

It is recommended that emergency personnel wear gas-bearing respirators, anti-static clothing, and rubber oil-resistant gloves.

Do not touch or cross leaks.

All equipment used in the operation should be grounded.

Cut off the source of the leak as much as possible.

Eliminate all ignition sources

Define a warning zone based on the affected area of liquid flow, vapor, or dust diffusion. Unrelated personnel should be evacuated from the crosswind and upwind to the safe area.

Environment precaution procedure:

Do not let the liquid after the fire extinguish into the sewer and river. In case of river, lake or water pollution, the relevant government department should be notified in accordance with local laws

Methods and material for containment and cleaning up:

Small leaks: Collect leaking liquid in sealable containers as much as possible. Absorb with sand, activated carbon or other inert materials and transfer to a safe place. It is forbidden to rush into the sewer.

Large amount of leakage: Constructing dikes or digging pits to contain. Close the drainage pipe.

Cover with foam to suppress evaporation. Use an explosion-proof pump to transfer to a tank truck or special collector and recycle or transport to a waste disposal site for disposal.

Section 7 Handling and storage

Precaution for safety handling:

Operators should undergo special training and strictly abide by the operating regulations.
 Operation and disposal should be carried out in places with local ventilation or full ventilation facilities.
 Avoid contact with eyes and skin and inhalation of vapors.
 Refer to Section 8 for personal protection measures.
 Keep away from fire and heat, smoking is strictly prohibited in the workplace.
 Use explosion-proof ventilation systems and equipment.
 If canning is required, the flow rate should be controlled and there is a grounding device to prevent the accumulation of static electricity.
 Avoid contact with prohibited substances such as oxidants (for prohibited substances see section 10).
 Handle lightly when handling to prevent damage to packaging and containers.
 Empty containers may be harmful residues.
 Wash hands after use, and do not eat or drink in the workplace.
 Equipped with corresponding varieties and quantities of firefighting equipment and leakage emergency treatment equipment.

Precaution for storage:

Store in a cool, ventilated warehouse.
 The storage temperature should not exceed 35°C.
 It should be stored separately from oxidants and edible chemicals and must not be stored together (see section 10 for prohibited ingredients).
 Keep container tightly closed.
 Keep away from fire and heat.
 The warehouse must be equipped with lightning protection equipment.
 The exhaust system should be equipped with a grounding device to remove static electricity.
 Use explosion-proof lighting and ventilation facilities.
 The barrel stacking should not be too large, and the wall distance, top distance, column distance and necessary fire protection inspection walkway should be left.
 It is forbidden to use equipment and tools that easily generate sparks.

Section 8 Exposure controls/personal protection**Occupational exposure limits:**

Ingredient name	Maximum allowable concentration	Standard
Isopropanol	PC-STEL: 700mg/m ³ ; PC-TWA: 350mg/m ³	GBZ 2.1 OEL (China)
2-Butoxyethanol	TWA: 20ppm	ACGIH TLV (USA)
n-Pentanol	PC-STEL: 300mg/m ³ ; PC-TWA: 200mg/m ³ STEL: 250ppm; TWA: 200ppm	GBZ 2.1 OEL (China) ACGIH TLV (USA)

Monitoring method:

GBZ/T 160.1~GBZ/T 160.81-2004 Determination of Toxic Substances in Workplace Air (Series Standard).
 EN 14042 Workplace air Guidance on procedures for evaluating exposure to chemical or biological agents.

Proper engineering control:

The workplace is recommended to be separated from other workplaces. Airtight operation to prevent vapor leakage into the air in the workplace. Strengthen ventilation and keep the concentration in the air below the occupational exposure limit. Set automatic alarm device and accident ventilation equipment. Set up emergency evacuation channels and necessary escape areas. Set red area warning lines, warning signs and Chinese warning instructions, and set up a communication alarm system. Provide safety shower and eyewash equipment.

Personal protective equipment:

Respiratory protection: When the concentration in the air exceeds the standard, wear a self-priming filter gas mask (half mask). During emergency rescue or evacuation, you should wear an air breathing apparatus or an oxygen inhaler.

Eye and face protection: Wear chemical safety glasses.

Skin and body protection: Wear protective clothing for penetration of poison.

Hand protection: Wear rubber oil resistant gloves.

Section 9 Physical and chemical properties

Exterior: Red mucus.

PH: 7-9

Viscosity (mPA.s, 25°C): 1000-3000

Boiling point (°C): 100

VOC(g/l): 70-90

Flash point (°C): >70 (Close cup)

Solid contents (%): 20-30

Upper explosion limit [% (volume fraction)]: No data.

Lower explosion limit [% (volume fraction)]: No data.

Relative density (water is calculated as 1): 0.965

Solubility: Soluble in water.

Section 10 Stability and reactivity

Stability: The product is stable.

Dangerous reaction: Under normal conditions, no dangerous chemical reaction will occur during storage and use.

Conditions to avoid contact: Static electricity, open flame, high heat.

Taboos: Strong oxidants, strong bases, strong acids.

Hazardous decomposition products: Under normal storage and use conditions, no dangerous decomposition products will be produced.

Section 11 Toxicological information

Acute toxicity:

Ingredient name	Result	Species	Dose	Exposure
Isopropanol	LD50 Oral	Rat	5045mg/kg	-
	LC50 Inhalation vapor	Rat	16000ppm	-
	LD50 Skin	Rabbit	12800mg/kg	-
2-Butoxyethanol	LD50 Oral	Rat	470mg/kg	-
	LC50 Inhalation vapor	Rat	450ppm	4 hours
n-Pentanol	LD50 Oral	Rat	1870mg/kg	-
	LD50 Skin	Rabbit	5040mg/kg	-

Irritating:

Ingredient name	Exposure pathway	Result	Species	Dose/time
Isopropanol	Skin	Mild irritant	rabbit	500mg
	Eye	Moderate irritant	rabbit	100mg/24h

2-Butoxyethanol	Skin	Mild irritant	rabbit	500mg
	Eye	Moderate irritant	rabbit	100mg/24h
n-Pentanol	Skin	Mild irritant	rabbit	500mg
	Eye	Moderate irritant	rabbit	20mg/24h

Reproductive toxicity: No data.

Specific target organ toxicity (one exposure): No data.

Specific target organ toxicity (multiple exposures): No data.

Inhalation hazard: No data.

Section 12 Ecological information

Ecotoxicity:

Ingredient name	Result	Species	Exposure time
Isopropanol	LC50 9640mg/l	Fish	96 hours
	EC50 13299mg/l	Daphnia	48 hours
	IC50 >1000mg/l	Algae	72 hours
2-Butoxyethanol	LC50 1474mg/l	Fish	96 hours
	EC50 1800mg/l	Daphnia	48 hours
	EC50 911mg/l	Algae	72 hours
n-Pentanol	LC50 370 490mg/l	Fish	96 hours
	EC50 440mg/l	Daphnia	48 hours
	IC50 280mg/l	Algae	72 hours

Persistence and degradability: No data.

Potential bioaccumulation: No data.

Mobility of soil: No data.

Other environmental harmful effects: No data.

Section 13 Disposal considerations

Waste chemicals:

Recycle as much as possible. If recycling is not feasible, dispose according to local regulations.

Contaminated packaging:

Empty containers should be sent to approved waste disposal sites for recycling or disposal. If recycling is not feasible, dispose of in accordance with local regulations.

Disposal considerations:

Please refer to relevant national and local regulations before disposal.

Section 14 Transport information

According to transportation regulations, this product is not classified as dangerous goods and a combustion aid.

Transportation considerations:

Confirm that the container is free of any damage, corrosion, or leakage before transportation. Make sure to avoid damaging the cargo during the loading process and avoid falling or collapsing. According to the relevant regulations, use suitable containers during transportation and indicate the appropriate marking content.

Section 15 Regulatory information

Hazardous Chemicals Safety Management Regulations:

Safe Production Law of the People's Republic of China

Code of Occupational Disease Prevention of PRC

Environmental Protection Law of the People's Republic of China

Laws of the People's Republic of China on the Prevention and Control of Atmospheric Pollution

Marine Environment Protection Law of the People's Republic of China

Law of the People's Republic of China on the prevention and control of environmental pollution by solid wastes

Fire Control Law of the People's Republic of China

Regulations on the Control over Safety of Dangerous chemicals

Occupational Exposure Limits for Hazardous Agents in the Workplace (GBZ2.1)

Occupational Exposure Limits for Hazardous Agents in the Workplace (GBZ2.2)

General Rules for Chemical Classification and Risk Disclosure (GB13690)

National Hazardous Waste List

General Storage Rules for Commonly Used Chemical Dangerous Goods (GB15603)

Dangerous Goods List (GB12268)

Dangerous goods classification and name code (GB6944)

Dangerous goods packaging signs (GB190)

Section 16 Other information

MAC: The maximum allowable concentration refers to the concentration of toxic chemicals that should not be exceeded at any time within a working day at the workplace.

PC-TWA: The time-weighted average allowable concentration refers to the average allowable exposure level of 8 hours of working days specified by time as a weight.

ACGIH TWA: Threshold limits of the US Government Conference of Industrial Hygienists-Time-weighted average concentration.

ACGIH STEL: US Government Industrial Hygienists Conference Threshold Limits-Short-Term Exposure Limits.

LD50: Lethal dose through the mouth and skin. Statistically significant, the dose required to cause 50% of individuals in a group of subjects to die.

LC50: The respiratory tract inhales the lethal concentration. Statistically significant, the concentration required to cause 50% of individuals in a group of subjects to die.

EC50: Half-maximum effect concentration refers to the concentration that can cause 50% of the maximum effect.

IC50: Inhibitor concentration at 50% inhibition.

NOEC: No obvious effect concentration

References:

1. Zhou Guotai, *Hazardous chemicals safety technology*, Chemical Industry Press, 1997.
2. State Environmental Protection Administration of toxic chemicals management & the Beijing Institute of chemical research, *Handbook of Environmental Data for Environmental Regulations*, China Environmental Science Press, 1992.
3. Cheng nenglin, *Solvent Handbook*, Chemical Industry Press, 1994.
4. Canadian Centre for Occupational Health and Safety. CHEMINFO Database, 1989.

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Statement: The above data is based on existing knowledge and experience. The safety data is used as safety guidelines. The information can only be the guidelines of safety transport, storage, loading and handling but not

the guarantee and data index. This MSDS only provide information on the safety of product use to those who have received proper professional training. The user must make an independent judgment on the suitability of the MSDS under special conditions. In special occasions, the author is not responsible for the damage caused by using this MSDS.