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1. Product Identification **AQUASOL HS3** Trade name: SDS Number: S-282J-E2E Murakami Screen USA Inc. Manufacturer's name: 745 Monterey Pass Road, Monterey Park, CA 91754 Address ; 323-980-0662 Phone number: 323-980-0659 FAX number; Recommended use of chemical and restrictions on use: Material for screen printing. Not intended for other applications 2. Hazard identification GHS classification: Physical hazards: Not applicable Explosives Flammable gases Not applicable Flammable aerosols Not applicable Not applicable **Oxidizing gases** Gases under pressure Not applicable Flammable liquids Not classified Flammable solids Not applicable Not classified Self-reactive substances and mixtures **Pyrophoric liquids** Not classified **Pyrophoric solids** Not applicable Self-heating substances and mixtures Not classified Substances and mixtures, which in contact with water, emit flammable gases Not applicable **Oxidizing liquids** Not applicable Not applicable **Oxidizing solids Organic peroxides** Not applicable **Corrosive metals** Classification not possible Health hazards; Acute toxicity (Oral) Classification not possible Classification not possible Acute toxicity (Dermal) Acute toxicity (Inhalation: Gases) Not applicable Acute toxicity (Inhalation: Vapours) Classification not possible Acute toxicity (Inhalation: Dusts and Mists) Classification not possible Skin corrosion/irritation Classification not possible Eye damage/eye irritation Classification not possible **Respiratory sensitization** Classification not possible Skin sensitization Classification not possible Germ cell mutagenicity Classification not possible Carcinogenicity Classification not possible **Reproductive toxicity** Classification not possible Specfic target organ toxicity (Single exposure) Classification not possible Specfic target organ toxicity (Repeated exposure) Classification not possible

Aspiration hazard

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Classification not possible



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E	nvironmental naza	irds;			
]	Hazardous to the a	quatic environment (Acute toxicity)	Classification not possible		
]	Hazardous to the aquatic environment (Chronic toxicity)		Category 3		
Hazardous to the ozone layer		zone layer	Classification not possible		
Pic	togram and Symb	ol: No symbol			
Sig	nal Word :	No word			
Ha	Hazard statement: H412 Harmful to aquatic life with long lasting effects				
Pre	Precautionary statements:				
P	revention ;	P273 Avoid release to the environment.			
D	isposal ;	P501 Dispose of contents / container in accordance with local / regional / national / international			
	1	regulations.			
3. Con	Composition/information on ingredients				

Substance or Mixture : Mixture

Ingredients and concentration ranges:

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Chemical name		Water	Water based emulsion	PVA-SBQ	Vinyl acetate
wt%		45≤<55wt%	$40 \leq < 50 \text{wt}\%$	$1 \leq < 10 wt\%$	<0.2wt%
C	AS No.	7732-18-5	Listed	Listed	108-05-4
	TSCA (USA)	Listed	Listed	Listed	Listed
Global Inventori	ENCS (Japan)	-	Listed	Listed	Listed
es	EC No. (EU)	Listed	Listed	Listed	Listed
	IECSC (China)	Listed	Listed	Listed	Listed

() PVA-SBQ = Poly (vinyl alcohol) with pendent styryl pyridinium group

First aid measures	
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	Get medical advice / attention if you feel unwell.
	Get medical advice / attention if experiencing respiratory symptoms.
Skin Contact:	Remove / Take off all contaminated clothing immediately.
	Wash with plenty of soap and water.
	Get immediate medical advice / attention, if skin irritation or rash occurs.
Eye Contact:	Remove contact lenses, if present and easy to do. Continue rinsing.
	Rinse with clean water for at least 15 minutes and then seek medical attention if necessary.
	When rinsing, open your eyelids with fingers to insure saturation of water.
Ingestion:	Rinse mouth. Do not induce vomiting.
	Get immediate medical advice / attention.
	If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain
	open airway and prevent aspiration.
Protection for pers	onnel administering first aid:
	Wear appropriate protective equipment if necessary.

5. Firefighting measures

4.

Extinguishing media:

Suitable extinguishing media;	Fire-extinguishing powder, fire-fighting foam, carbon dioxide, sand, water spray
Unsuitable extinguishing media;	Straight stream water

Specific hazards arising from the product :

When exposed to high temperatures, this product may generate dangerous decompositions such as nitrogen oxides carbon monoxide, carbon dioxide, and sulfur oxides.



Specific extinguishing measures:

Cut off the combustion source to the origin of fire and extinguish by using the appropriate fire extinguishing media.

Take appropriate measures to disallow substances that may affect the environment from being dispersed by the drainage.

Remove all containers possible to a safe place promptly.

If not possible to remove, cool down the area. Work from windward and use respiratory equipment if necessary.

Special protective equipment and precautions:

Wear appropriate protective wear (heat-proof) including air respirators.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid breathing mist / vapors.

Remove ignition sources in the area and work from windward.

Clean up immediately when it spills on the floor or any surface. (The floor surface becomes slippery).

Do not touch and/or walk in the spills.

The worker wears an appropriate protective equipment, and avoids eyes, the skin contacts, and inhalations. (refer to Item 8)

Prepare fire extinguishing equipment in case of ignition.

Environmental precautions:

Avoid releasing to the environment.

Collect spillage.

If the pollution of water pipes or waterways occur, contact relevant organizations.

Clean the area and avoid entry into plumbing system.

Methods and materials for recovery and neutralization:

Collect into open container by absorbing with cloths, rags, sand or etc. and then rinse with plenty of water. Contain the flow path with blankets or sand bags and collect into an appropriate container for large spills. Prevent the inflow into drains, sewer, basement, or enclosed areas.

Wear appropriate protective equipment throughout the process.

7. Handling and storage

Handling:	ng: Seal container after use.	
	Wash hands thoroughly and rinse mouth after handling.	
	Do not eat, drink or smoke when using this product.	
	Do not carry contaminated gloves and protective equipment into rest / break areas.	
	Wear proper protective equipment to avoid inhalation and contact with eyes and skin.	
Storage:	Keep container tightly closed.	
	Store in a dark light-safe area.	
	Do not freeze.	

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8.	Exposure controls/personal protection	n		
	Management density:	Not specified.		
	Exposure limit values :			
	ACGIH(2010);	TWA 10ppm STEL 15ppm / Vinyl acetate		
	Engineering measures:	It is desirable to install a local exhaust system as necessary.		
	Personal protective equipment :	Wear following protective equipment as necessary and accordingly.		
		Inspect equipment on a regular basis by using a protective equipment maintenance		
		chart.		
	Respiratory protection;	Wearing organic vapor gas mask is preferred.		
	Eye protection;	Wearing protective glasses is preferred.		
	Hand protection;	Wearing gloves that organic solvents or chemicals do not penetrate is preferred.		
	Skin protection;	Wearing protective clothing (long sleeve uniform) that organic solvent or the chemical do not infiltrate easily is preferred.		
9.	Physical and chemical properties			
	Appearance (physical state, color, etc	2.):		
	Physical state;	Liquid		
	Color;	Blue		
	Odour:	Mild		
	Melting point/freezing point:	Approx 0°C		
	Initial boiling point and boilinr range	e: Approx 100°C		
	Water solubility:	dispersible, soluble		
10.	Stability and reactivity			
	Reactivity: Decomposes upo	n heating and produces carbon dioxide and carbon monoxide.		
	Chemical stability :	Stable under normal conditions.		
	Conditions to avoid :	Sunlight, heat, open flame, high temperature, sparks, static electricity, other sources of ignition.		
	Incompatible materials:	No information available.		
	Hazardous decomposition products:	Carbon monoxide (CO), carbon dioxide (CO2) gas might be generated by combustion.		
11.	Toxicological information			
	Acute toxicity(Oral):			
	Information on product;	No information available, Classification not possible based on the calculation.		
	Information on ingredients;	Not classified or Classification not possible.		
	Acute toxicity (Transdermal):			
	Information on product;	No information available, Classification not possible based on the calculation.		
	Information on ingredients;	Not classified or Classification not possible.		
	Acute toxicity(Inhalation):			
	Information on product;	No information available, Classification not possible based on the calculation.		
	Information on ingredients;			
	Vinyl acetate	Category 4. Inhalation, rat LC50=11.4 mg/L/4hr		
	Skin corrosion/irritation:			
	Information on product;	No information available, Classification not possible based on the calculation.		
	Information on ingredients;	Not classified or Classification not possible.		
	Serious eye damage/irritation :			
	Information on product;	No information available, Classification not possible based on the calculation.		
	Information on ingredients;	Not classified or Classification not possible.		

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MURAKAMI CO.,LTD.

Safety Data Sheet

Respiratory sensitization: Information on product: No information available, Classification not possible based on the calculation. Information on ingredients; Not classified or Classification not possible. Skin sensitization: No information available, Classification not possible based on the calculation. Information on product; Information on ingredients; Not classified or Classification not possible. Germ cell mutagenicity: Information on product; No information available, Classification not possible based on the calculation. Not classified or Classification not possible. Information on ingredients: **Carcinogenicity:** No information available, Classification not possible based on the calculation. Information on product; Information on ingredients; Category 2. A3/ACGIH (2001), Group 2B/IARC (1995). Vinvl acetate **Reproductive toxicity:** No information available, Classification not possible based on the calculation. Information on product; Information on ingredients; Not classified or Classification not possible. STOT-single exposure: No information available, Classification not possible based on the calculation. Information on product; Information on ingredients; Vinyl acetate Category 3(respiratory tract irritation). STOT-repeated exposure: Information on product; No information available, Classification not possible based on the calculation. Not classified or Classification not possible. Information on ingredients; Aspiration hazard: No information available, Classification not possible based on the calculation. Information on product; Information on ingredients: Not classified or Classification not possible. 12. Ecological information Acute aquatic toxicity: No information available, Classification not possible based on the calculation. Information on product; Information on ingredients; Not classified or Classification not possible. Chronic aquatic toxicity: No information available, Category 3 based on the calculation. Information on product; Information on ingredients; Category 2. **PVA-SBQ** Persistence and degradability: Information on product; No information available. No information available. Information on ingredients; **Bioaccumulative potential:** No information available. Information on product; Information on ingredients; No information available. Mobility in soil: Information on product; No information available. No information available. Information on ingredients; Other adverse effects:

Information on product; Information on ingredients; The product is not allowed to run into drain or waterways.

No information available.

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13. Disposal considerations

Dispose of contents / container in accordance with local / regional / national / international regulations.

14. Transport information

Avoid direct sunlight during transportation. Confirm the container has no damage, corrosion, leakage before transportation. Take measures to prevent the load from tipping, falling and damages.

UN classification :	
UN number ;	Not applicable.
UN proper shipping name;	Not applicable.
Transport hazard class(es);	Not applicable.
Packing group;	Not applicable.
Environmental hazards (Marine pollutant):	Not applicable.
Land transport ADR / RID:	Transport in accordance with ADR/RID
Maritime transport IMDG :	Transport in accordance with IMDG
Air transport ICAO and IATA:	Transport in accordance with ICAO/IATA

15. Regulatory information

The product must be used, stored, and transported in accordance with local / regional / national / international

16. Other information

Handling of described contents:

The information contained herein is given in good faith and accurate to the best of our knowledge. No warranty is given, expressed, or implied.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties.

Moreover, it is likely to be revised based on a revision of the law and a new finding.

This product is developed for general industry. Please use it after confirming safety in your company for special applications.

Reference citations:

Regulation (EC) No. 1272/2008

LOLI Database (ChemADVISOR, Inc.)

Raw material company submitting SDS

The Chemical Daily Co., Ltd. "2011 version 15911 chemical products" (2011)

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