



# MSDS

## Material Safety Data Sheet

**Reference No.** ..... : WTS18F04109709C

**Applicant** ..... : Gold Array Technology Beijing LLC

**Address** ..... : Room 2008, Institute of Technology Building, No.9 south street, Zhongguancun, Haidian District, Beijing, China

**Manufacturer** ..... : Gold Array Technology Beijing LLC

**Address** ..... : Room 2008, Institute of Technology Building, No.9 south street, Zhongguancun, Haidian District, Beijing, China

**Sample Name** ..... : zABS

**Model No.** ..... : UNIZ Light cured resin(zABS)

**Date of Issue** ..... : 2018-06-25

**Note** ..... : As per client's requirement, the data was quoted from Report No. WTF16F0961566CX2C.

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## Material Safety Data Sheet

### Section 1 – Chemical Product and Company Identification

**Product Name:** zABS

**Trade name:** UNIZ Light cured resin(zABS)

**Recommended use:** UV Curable Resin

**Manufacturer:**

Name: Gold Array Technology Beijing LLC

Address: Room 2008, Institute of Technology Building, No.9 south street, Zhongguancun, Haidian District, Beijing, China

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### Section 2 – Hazards Identification

**Classification according to Regulation (EC) No 1272/2008:**

Acute toxicity, Oral (Category 4), H302

Skin sensitisation (Category 1), H317

**GHS Pictograms:**



**Signal word(s):** Warning

**Hazard statement(s):**

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.



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## Precautionary statement(s):

P280: Wear protective gloves/ eye protection/ face protection.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Other hazards:** None

## Section 3 – Composition/information on Ingredients

Pure

Admixture

Composition:

Chemical Name		Content (%)	CAS No.
zABS	(meth)acrylated monomers	Proprietary	Proprietary
	Acrylated oligomers (including multifunctional)	Proprietary	Proprietary
	Photoinitiator(s)	Proprietary	Proprietary

## Section 4 – First Aid Measures

**Skin touch:** Wash off with soap and plenty of water. Consult a physician.

**Eyes touch:** Rinse thoroughly with soap and plenty of water for at least 15 minutes and consult a physician.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## Section 5 – Fire Fighting measures

**Extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture:** Carbon oxides, nitrogen oxides, Oxides of phosphorus, etc.

**Advice for firefighters:** The staff must be equipped with filtermask (full mask) or isolated breathing apparatus. The staff must wear the clothes which can defence the fire and the toxic gas. Put out fire in the upwind direction. Spraying water on the product in the fireplace to keep them cool until finish extinguishment.



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## Section 6 – Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

### Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods and materials for containment and cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**Reference to other sections:** For disposal see section 13.

## Section 7 – Handling and storage

**Handling Precautions:** User Exposure — This product should be used in well-ventilated areas. Product may cause irritation. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash hands with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse. Solvents should never be used to clean hands or skin because they increase the penetration of the material into skin.

**Storage Precautions:** Suitable — Store in a cool, dry place out of direct sun light, in opaque or amber containers. Store the containers at 10-35°C (50–95°F). Do not exceed 60°C (140°F) when in storage. Keep containers closed. Avoid ignition sources.

**Special Requirements:** Do not heat containers with steam or electrical equipment. Heating this product above 150°C (300°F) in the presence of air may cause slow oxidative decomposition; above 260°C (500°F) polymerization may occur. Fumes and vapors from this thermal decomposition may be dangerous (carbon monoxide-carbon dioxide, nitrous oxides). Do not breathe fumes.

## Section 8 – Exposure controls, Personal Protection

**Control parameters:** No information is applicable.

**Monitoring Method:** No information is applicable.

**Engineering Control:** Handle in accordance with good industrial hygiene and safety practice. Wash hands



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before breaks and at the end of workday.

**Respiratory Protection:** Use self-contained full-faced respiratory equipment.

**Eyes/face Protection:** Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards.

**Body protection:** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hands Protection:** Handle with gloves.

**Other Protections:** None

**Control of environmental exposure:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## Section 9 – Physical and Chemical Properties

**Appearance:** Liquid

**Colour:** Green

**Odour:** Slight

**pH Value:** No information is applicable.

**Boiling point:** No information is applicable.

**Melting Point:** <0°C

**Flashpoint:** >80°C

**Density:** 1.14g/cm<sup>3</sup>

**Upper flammable(explosive) limits in air-Lower (vol%)-UEL:** No information is applicable.

**Oxidising properties:** No information is applicable.

**Vapour pressure:** No information is applicable.

**Solubility in water:** Partly soluble in water

**Partition coefficient (n-octanol / water):** No information is applicable.

**Viscosity:** No information is applicable.

**Vapour density:** No information is applicable.

**Evaporation rate:** No information is applicable.

**Ignition temperature:** No information is applicable.



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## Section 10 – Stability and Reactivity

**Reactivity:** No information is applicable.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** No information is applicable.

**Conditions to avoid:** No information is applicable.

**Incompatible materials:** Oxidizing agents, strong acids, strong bases

**Hazardous decomposition products:** Carbon oxides, nitrogen oxides, Oxides of phosphorus, etc.

## Section 11 – Toxicological Information

**Information on toxicological effects:**

**Acute toxicity:**

Chemical Name	CAS No.	Routes of exposure	LD/LC50 values	
(meth)acrylated monomers	---	Oral	LD50	588mg/kg (rat)
		Dermal	LD50	>2000mg/kg (rat)
Photoinitiator(s)	---	Oral	LD50	>2000mg/kg (rat)
		Dermal	LD50	>2000mg/kg (rat)

**Skin corrosion/irritation:**

Chemical Name	CAS No.	Routes of exposure	Result
(meth)acrylated monomers	---	Skin	No skin irritation - 24 h (rabbit)
Photoinitiator(s)	---	Skin	No skin irritation - 4 h (rabbit)

**Serious eye damage/eye irritation:**

Chemical Name	CAS No.	Routes of exposure	Result
(meth)acrylated monomers	---	Eyes	Risk of serious damage to eyes (rabbit)
Photoinitiator(s)	---	Eyes	No eye irritation - 72 h (rabbit)



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## Respiratory or skin sensitization:

Chemical Name	CAS No.	Routes of exposure	Result
(meth)acrylated monomers	---	Vivo assay	May cause sensitisation by skin contact. (guinea pig)
Photoinitiator(s)	---	Maximisation Test	May cause sensitisation by skin contact. (guinea pig)

**Germ cell mutagenicity:** No information is applicable.

**Carcinogenicity:** No information is applicable.

**Reproductive toxicity:** No information is applicable.

**Specific target organ toxicity - single exposure:** No information is applicable.

**Specific target organ toxicity - repeated exposure:** No information is applicable.

**Aspiration hazard:** No information is applicable.

**Additional Information:** None

## Section 12 – Ecological Information

### Toxicity:

Chemical Name	CAS No.	Result	
(meth)acrylated monomers	---	Toxicity to algae	Growth inhibition EC50 - Pseudokirchneriella subcapitata - > 120 mg/l - 72 h
Photoinitiator(s)	---	Toxicity to fish	Semi-static test LC50 - Danio rerio (zebra fish) - > 0,09 mg/l - 96 h
		Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 - Daphnia magna (Water flea) - > 1,17 mg/l - 48 h
		Toxicity to algae	Growth inhibition EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus) - > 0,26 mg/l - 72 h
		Toxicity to bacteria	Respiration inhibition EC50 - Sludge Treatment - > 100 mg/l - 3 h

**Persistence and degradability:** No information is applicable.

**Bioaccumulative potential:** No information is applicable.

**Mobility in soil:** No information is applicable.

**Results of PBT and vPvB assessment:** No information is applicable.

**Other adverse effects:** None



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## Section 13 – Disposal Considerations

**Nature of waste:** No information is applicable.

**Waste disposal methods:** Refer to national or local regulations before handling.

**Attention abandoned:** No information is applicable.

## Section 14 - Transport information

**UN Number:** Not available.

**Class:** Not available.

**Packing group:** Not available.

**Proper shipping name:** No information is applicable.

**Packaging Mark:** No information is applicable.

**Packaging Method:** 500mL bottled

**Transport Fashion:** By air, by sea, by rail, by highway

**Transport Attentions:** Examine whether the package of the containers are integrate and tight-closed or not before transport. No collapse or no damage during the course of transportation. Don't put the goods together with corrosive chemicals. Stopovers should be away from fire and heat sources. Keep out of the sun and the rain.

## Section 15 – Regulatory Information

### Regulatory Information:

ISO 11014-2009 Safety data sheet for chemical products – Content and order of sections.

REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

REGULATION (EU) No 453/2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The international Maritime Dangerous Goods (IMDG) Code

International Air Transport Association (IATA) Dangerous Goods Regulations

The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

The Regulations Concerning the International Transport of Dangerous Goods by Rail (RID)

U.S. Department of Transportation (DOT)



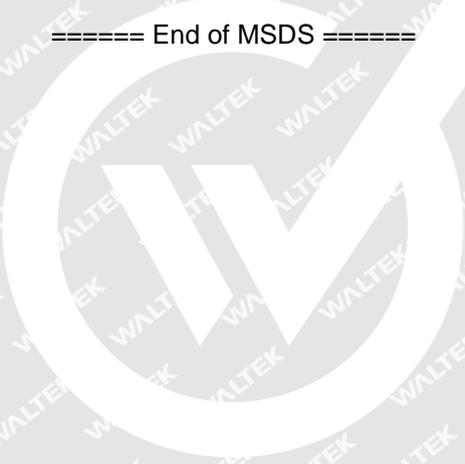
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Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

## Section 16 – Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the result of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for this particular purpose.

===== End of MSDS =====



# WALTEK