

## Safety Data Sheet

**ART-ZQA****1. Chemical Product and Company Identification**

Chemical name	Hardening Accelerating Admixture for Sprayed Concrete		
Trade name	ART-ZQA		
Application	Hardening Accelerator for Sprayed Concrete		
Manufacturer	Jiangsu Arit New Materials Co., Ltd		
Address	22 Huixin Road, Nanjing, China	Zip code	211505
Email	info@arit.com		
Contact phone number	86-25-57675555		

**2. Composition/Information on ingredients**

Component	CAS No.	Content
Sodium nitrite	7632-00-0	5.0%~12.0%
Diethanolamine (DEA)	111-42-2	2.0%~5.0%
Triethanolamine (TEA)	102-71-6	1.0%~3.0%
Water	7732-18-5	80.0%~90.0%

**3. Hazards Identification**

Hazard Category: Non-flammable, non-explosive and non-toxic.

Invasion way: Skin and eyes contact, inhalation and mistake ingestion.

Health effect: May cause eye irritation. No stimulation to skin. May cause stimulation to oral cavity and stomach after mistake intake. No carcinogenicity.

Environment effect: Slight harm to fish and other animals.

Other hazards: None.

**4. First Aid Measures**

Skin contact: Take off contaminated clothing and wash off with soap and flowing water.

Eye contact: Rinse immediately with plenty of water or normal saline. Seek immediate medical help if feel itching and painful.

Ingestion: Drink enough warm water and vomit. Consult a physician.

Inhalation: Move to fresh air environment if odor allergies.

## **5. Fire-fighting Measures**

Hazardous characteristics: None.

Harmful burning waste: The aqueous solution is non-combustible. The solid composition burns to form carbon dioxide and a small amount of sulfur oxides.

Extinguishing media: Foam, dry powder, carbon dioxide extinguishers or water sprays.

## **6. Accidental Release Measures**

Release measures: Cut off the leakage sources. Prevent the released material from entering confined space such as sewers, flood discharge trench and so on.

Little leakage: Soak up with absorbent material, such as clay, sand, vermiculite or other inert materials. The diluted leakage can be discharged to the wastewater treatment system.

Mass leakage: If the leakage is not contaminated, collect the spills with a clean container for reuse. Construct a barrier or dig pits to hold waste leakage, then pump to tank or special collector, and transport to the waste disposal sites.

Elimination method: Collect the leakage, and wash the leakage with water.

Waste disposal: According to local environmental requirements.

## **7. Handling and Storage:**

Handling note: Avoid contact with skin or eyes. Wear personal protective equipment.

Storage note: Stored in a cool and dry place, keep away from sunshine, rain, fire and heat.

## **8. Exposure Controls/Personal Protection**

The maximum allowable concentration: Unlimited.

Monitoring method: No standard.

Engineering control: Ensure adequate ventilation.

Respiratory protection: If this concentration is exceeded, self-contained breathing apparatus must be used.

Eye protection: Safety eyewear is recommended.

Body protection: Workwear is recommended.

Hand protection: Protective gloves are recommended.

Other protection: No eating and drinking in work area in order to avoid the mistake. Avoid the generation of dust. Avoid contact with oxidizing agents. Handle with

care to prevent damage to the packaging during transportation. Equip with spill emergency response equipment.

### **9. Physical and Chemical Properties:**

Form: Liquid

Color: Transparent color

Odor: No irritating odor

pH:  $6.0 \pm 1.0$

Chloride ion content:  $\leq 0.1\%$

Total alkalinity:  $\leq 5\%$

Melting point:  $< 0^{\circ}\text{C}$

Boiling point: about  $100^{\circ}\text{C}$

Relative density (Water=1):  $1.08 \pm 0.03$

Solubility: Soluble in water

Explosive limit/%(V/V): Insignificance

Flash point: Insignificance

### **10. Stability and Reactivity**

Chemical Stability: Good chemical stability. Layering and crystallization may occur in winter.

Conditions to avoid: High temperature or frozen environment.

Incompatibility with other materials: Rust, oily substances.

Hazardous polymerization: None.

Decomposition product: None.

### **11. Toxicological Information:**

Acute toxicity: None,  $LD_{50} > 20 \text{ g/kg}$

Subacute and chronic toxicity: No information available.

Irritation: Have a stimulating effect to eyes, and a mild stimulating effect to mouth and stomach if mistake intake.

Sensitization: None.

Mutagenicity: None.

Teratogenicity: None.

Carcinogenicity: None.

Special note: None.

**12. Ecological Information:**

Ecotoxicity: No known ecotoxicological effects.

Biodegradability: Partially biodegradable.

Non-biodegradable: No information available.

Bioconcentration or bioaccumulation: No information available.

**13. Disposal Considerations:**

Nature of waste: non-hazardous waste, non-industrial solid waste.

Waste Disposal Method: proper burial place or treatment according to local environmental requirements.

**14. Transport Information:**

Dangerous Goods Code	Not available	Shipping classification	Not available
UN Number	Not available	Packing	IBC Tank/Flexitank
Package Markings	Not available	Transport Caveats	None

**15. Regulatory Information**

This product is not classified as dangerous goods according to transport international regulations (IMDG, IATA, ADR/RID).

It is not limited by the hazardous chemical materials according to safety management regulations.

**16. Additional Information**

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Guidance Department	R & D Center	Version	Second Edition