

SAFETY DATA SHEET

1. Product and Company Identification

Product Name: **Aqueous Corrosion Inhibitor WP-1**
 Company Name: Denshijiki Industry Co., Ltd.
 Address: 5-6-20 Ukima, Kita-Ku, Tokyo
 Section in Charge: Development department
 Telephone: +81-3-5970-8681 FAX: +81-3-5970-8680
 Emergency Telephone: Same as the section in charge
 Date of Creation: June 15, 2011 Date of Revision: January 21, 2021
 Reference Number: SDS15130-07e
 Product Code: 15130,15131
 Recommended Uses and Restrictions on Use: Magnetic particle testing (water-based method)

2. Hazards Identification

GHS Classification

Physical Hazards	Flammable liquids	Classification not possible
	Material corrosive to metals	Classification not possible
Health Hazards	Acute toxicity (oral)	Category 5
	Acute toxicity (inhalation)	Classification not possible
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Respiratory sensitization	Classification not possible
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity (single exposure)	Category 1 (liver)
Environmental Hazards	Specific target organ toxicity (repeated exposure)	Category 2 (liver, kidney, blood, and central nervous system)
	Aspiration hazard	Classification not possible
	Hazardous to the aquatic environment (acute)	Category 3
	Hazardous to the ozone layer	Classification not possible

GHS Label Elements



Pictograms:

Signal Word: **Danger**

Hazard Statement: May be harmful if swallowed
 Causes skin irritation
 Causes serious eye damage
 Suspected of causing cancer

Suspected of damaging fertility or the unborn child

Causes damage to organs (liver)

May cause damage to organs through prolonged or repeated exposure (liver, kidney, blood, central nervous system)

Harmful to aquatic life

Precautionary Statement:

Prevention	<p>Do not handle until all safety precautions have been read and understood.</p> <p>Do not breathe mists or vapors.</p> <p>Wash hands thoroughly after handling.</p> <p>Do not eat or drink when using this product.</p> <p>Avoid release to the environment.</p> <p>Wear protective gloves/eye protection/face protection/protective clothing.</p> <p>Use only outdoors or in a well-ventilated area and avoid breathing mist/vapors. Or avoid ingestion.</p>
Response	<p>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with running water.</p> <p>If skin irritation occurs: Get medical advice/attention.</p> <p>Wash contaminated clothing before reuse.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.</p> <p>In case of fire, use dry chemical, foam, or carbon dioxide fire extinguishers.</p> <p>If you feel unwell, get medical advice immediately. Get medical advice/attention.</p> <p>IF exposed or concerned: Get medical advice/attention.</p>
Storage	<p>Store in a cool, well-ventilated place, away from direct sunlight.</p> <p>Keep container tightly closed. Store locked up.</p>
Disposal	<p>Dispose of contents/container at an approved waste disposal plant in accordance with local/regional/national regulations.</p>

3. Composition/Information on Ingredients

Substance/Mixture: Mixture

Chemical Name or Common Name	Content (%)	CAS No.
Water	68–78	-
Additive	22–32	Trade secret

4. First Aid Measures

IF INHALED	: Remove person to fresh air and keep comfortable for breathing. Cover with a blanket, keep warm and at rest, and get medical attention as needed.
IF ON SKIN	: Wash skin with plenty of water and soap.

- IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse for at least 15 minutes, and then get medical attention.
- IF SWALLOWED : Do NOT induce vomiting. Get medical attention. If the product remains in the mouth, rinse thoroughly.
- Most Important Signs and Symptoms, Acute and Delayed : If swallowed, may cause diarrhea and vomiting.
If in eyes, may cause inflammation. If on skin, may cause inflammation.
If mist is inhaled, you may feel unwell.
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5. Firefighting Measures

- Extinguishing Media : Mist of water and alkali salts, dry chemicals, carbon dioxide, and foam.
For initial fires, use dry chemicals or carbon dioxide.
For large-scale fires, it is possible to use firefighting foam to smother the fire.
- Inappropriate Extinguishing Media : Pouring water on can escalate the fire and is dangerous.
Do not use straight streams of water to extinguish fires.
- Specific Hazards : If burned, toxic gases (such as carbon monoxide) can be generated
- Special Firefighting Procedures : Extinguish the source of the fire. Cool down surroundings by spraying them with water.
Keep unnecessary personnel away from the fire and the surrounding area.
- Protection of Firefighters : Perform fire-fighting from the windward side, and be sure to wear protective equipment.
If burned or exposed to high temperature, this product may generate toxic gases (such as carbon monoxide). So wear respiratory protection.
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6. Accidental Release Measures

- Personal Precautions, Protective Equipment and Emergency Procedures : Wear protective equipment during firefighting operations.
- Environmental Precautions : Do not let the discharged product drain into water systems in order to prevent any environmental impact.
- Method and Materials for Containment and Cleaning Up : Remove nearby potential sources of ignition immediately.
For small-scale leakage, collect the material by absorbing released material with earth, sand, sawdust, waste cloth, or other materials.
For large-scale leakage, seal off the area using measures such as surrounding the leakage location with a rope. Stop the flow of the leaked liquid using sand, etc. and collect as much of it in a container as possible.
At sea, extend an oil fence to stop the diffusion and absorb it with adsorption mats, etc.
- Measures to Prevent Secondary Accidents : Inform relevant organizations immediately to prevent further accidents and expansion.
Remove nearby potential ignition sources immediately and prepare fire extinguishing media.
Watch your step as wet floors are slippery.
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7. Handling and Storage

Handling

- Technical Measures : Wear protective equipment if skin or eye contact is possible.
Use a tool like a pump for extracting the product from the container. Do not suck it up using a fine pipe.
If mist is generated, use breathing apparatus, etc. to prevent inhalation of the mist.
Containers must be tightly closed.
- Precautions for Safe Handling : Avoid contact, inhalation, or ingestion. Do not get in eyes. Wash hands thoroughly after handling.

Storage

- Proper Storage Conditions : Store in a cool, well-ventilated place, away from direct sunlight. Keep containers sealed.
Avoid contact and storage with halogens, strong acids, alkalis, and oxidizing materials.
Store locked up if necessary.
- Safe Packaging Materials : Keep in containers specified in the product specifications.

8. Exposure Controls/Personal Protection

- Control Levels : Not established. (Work environment assessment standard: 2009 Ministry of Health, Labor and Welfare Notification No. 194/195)
- Permissible Exposure Levels : No data available
- Engineering Measures : If mist is generated, the source must be tightly sealed or ventilation equipment must be installed.
Install a shower and an eye washer near the handling location.
- Protective Equipment
- Respiratory System Protection : Wear a gas mask (for organic gasses) if necessary.
- Hand Protection : Wear oil resistant gloves for long time or repeated contact.
- Eye Protection : Wear standard glasses for splash prevention.
- Skin and Body Protection : Wear oil resistant long-sleeve work clothing for long-time handling or contact.

9. Physical and Chemical Properties

- Physical state : Liquid
- Color : Translucent but slightly yellowish
- Odor : Slight odor
- Melting point/ freezing point : No data available
- Boiling point or initial boiling point and boiling range : No data available
- Flammability : Non-combustible
- Lower and upper explosion limit / flammability limit : No data available
- Flash point : No data available

Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	9.9 (diluted 30 times)
Kinematic viscosity	:	No data available
Solubility	:	Soluble in water
Partition coefficient n-octanol/water (log value)	:	No data available
Vapor pressure	:	No data available
Density and/or relative density	:	1.035 g/cm ³ (15°C)
Relative vapor density	:	No data available
Particle characteristics	:	No data available

10. Stability and Reactivity

Chemical Reactivity and Stability	:	The product is stable under normal handling and storage conditions.
Possibility of Hazardous Reactions	:	Keep tightly sealed and avoid contact with strong oxidizing agents.
Conditions to Avoid	:	Contact with halogens, strong acids, alkalis, and oxidizing agents.
Incompatible Materials	:	Peroxides, strong oxidizing agents
Hazardous Decomposition Products	:	Carbon monoxide etc. can be generated by burning, etc.

11. Toxicological Information

Acute Toxicity (oral)	:	LD ₅₀ ≥ 4,269 mg/kg (ATEmix)
Acute Toxicity (dermal)	:	LD ₅₀ ≥ 18,360 mg/kg (ATEmix)
Acute Toxicity (inhalation: mist)	:	LC ₅₀ ≥ 7.45 mg/L (ATEmix)
Skin Corrosion and Skin Irritation	:	Contains less than 5% of ingredients of Skin Toxicity Category 1 and 10% or more of ingredients of Skin Toxicity Category 2.
Serious Eye Damage or Eye Irritation	:	Contains 3% or more of ingredients of Skin Toxicity Category 1, 3% or more of ingredients of Eye Toxicity Category 1, less than 10% of ingredients of Eye Toxicity Category 2, and less than 10% of ingredients of Eye Toxicity Category 2B.
Respiratory Sensitization	:	No data available
Skin Sensitization	:	Does not contain ingredients of Skin Sensitization Categories 1.
Germ Cell Mutagenicity	:	Does not contain ingredients of Germ Cell Mutagenicity Category 1 or 2.
Carcinogenicity	:	Contains 1% or more of ingredients of Carcinogenicity Category 2.
Reproductive Toxicity	:	Contains 3% or more of ingredients of Reproductive Toxicity Category 2.
Specific Target Organ Toxicity, Single Exposure	:	Contains 10% or more of ingredients of Single Exposure Toxicity Category 1, less than 1% of ingredients of Exposure Toxicity Category 2 and less than 20% of ingredients of Single Exposure Toxicity Category 3.
Specific Target Organ Toxicity, Repeated Exposure	:	Contains 10% or more of ingredients of Repeated Exposure Toxicity Category 2.
Aspiration hazard	:	No data available

12. Ecological Information

Ecotoxicity

- Acute Toxicity : Contains less than 20% of ingredients of Acute Toxicity Category 2 and less than 5% of ingredients of Acute Toxicity Category 3.
- Chronic Toxicity : Does not contain ingredients of Chronic Toxicity Category 1, 2, 3 or 4.
- Persistence/Degradability : No data available
- Bioaccumulative Potential : No data available
- Mobility in Soil : Can move to the atmosphere, water systems, and soil environments due to its physico-chemical properties.
- Hazardous to the Ozone Layer : No data available
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13. Disposal Considerations

Have contents/container disposed of by an industrial waste disposal contractor licensed by the prefectural governor.

No dumping is allowed.

If this product is disposed of by landfill, incinerate it by using an incineration system in advance and check that the burned residue does not exceed the criteria defined in the Order for Enforcement of the Waste Management and Public Cleansing Act.

If this product is burned, burn it in a safe place using a method that does not cause harm or damage due to burning or explosion and have someone stand guard.

14. Transport information

- UN Hazard Class : Not restricted
- UN No. : Not restricted
- Not regulated for transport of dangerous goods (IATA, IMDG)
- Follow other related laws and regulations.
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15. Regulatory Information

Comply with the applicable laws and regulations regarding this product in each country/region.

16. Other Information

This Safety Data Sheet was prepared in accordance with JIS Z 7253:2019 to provide users of this product with reference information to ensure safe handling. Users are responsible for taking appropriate measures for individual handling conditions with reference to this SDS.

This SDS does not represent any guarantee of safety.

Major references

Safety Data Sheets (SDS) provided by raw material manufacturers

Japanese Standards Association (JIS) JIS Z 7253:2019 "Hazard communication of chemicals based on GHS"

NITE Chemical Risk Information Platform (CHRIP)
