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## Safety Data Sheet

### 1. Product and Company Identification

Product name:

ADDITIVE, ZCH-100D

Manufacture:

Roland DG Corporation

Address:

1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN

Phone:

+ 81-53-484-1224

Fax:

+ 81-53-484-1226

Importer/Supplier:

Roland DGA Corporation

Address:

15363 Barranca Parkway Irvine, CA 92618-2201  
U.S.A.

Phone:

949-727-2100

Fax:

949-727-2112

Emergency telephone:

949-727-2100

Use of the product:

Inkjet Printing

Date of issue:

19 May, 2017

### 2. Hazard Identification

#### 2.1 Emergency Overview:

Appearance and odor:

Clear liquid and slight odor

GHS label elements, including precautionary statements

The product does not need to be labelled in accordance with GHS criteria.

#### 2.2. OSHA regulatory status

This product is not considered hazardous material by the OSHA Communication Standard (29 CFR 1910.1200)

#### 2.3. Potential health effects

Likely route of exposure:

Eye, skin, inhalation or oral.

Eye:

Contact with eye may be mildly irritating.

Skin:

Contact with skin may cause irritation, swelling or redness.

Inhalation:

Exposure to vapors (mist) will cause respiratory irritation and anesthesia.

Ingestion:

May cause upset stomach.

Chronic Health Hazards:

Repeated skin contact may cause a persistent irritation or dermatitis.

Carcinogenicity:

None of the ingredients in this product is listed by IARC as a carcinogen. (1,2A and 2B)

See section 11 for more information.

#### 2.4. Potential environmental effects

See section 12 for Ecological information.

### 3. Composition/information on ingredients

**Chemical nature:** mixture

Composition	CAS No.	% By Weight	Classification HCS
Chelating agent	C.B.I.	40-60	Not classified as hazardous
Water	-	40-60	Not classified as hazardous

\*C.B.I.: Confidential Business Information

Additional information: Chemical name and exact concentrations are being withheld as trade secrets.

### 4. First Aid Measures

#### 4.1. Description of first aid measures

- Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open during flushing. Call a physician.
- Skin:** In case of contact, immediately flush with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. If swelling or redness occurs, call a physician.
- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion:** If swallowed, DO NOT induce vomiting. Seek immediate medical advice.

#### 4.2. Note to physicians

May cause skin and eye irritation. Excessive inhalation of mist will cause respiratory irritation.

### 5. Fire Fighting Measures

#### 5.1. Flammable properties:

Not Flammable, Flash Point: >100 °C

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### 5.2. Extinguishing media

Suitable extinguishing media:

Dry chemical, Foam, Carbon dioxide, Dry sand, Loaded stream in spray.

Unsuitable extinguishing media:

Water, High-pressure water jet

#### 5.3. Protection of fire fighters

Special hazards arising from the substance or mixture

Toxic and irritating fume and/or gases may generate by combustion.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective equipment.

Applying direct water may be dangerous because fire may expand to surroundings.

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## 6. Accidental Release Measures

### General:

Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill. Absorb spill with sand or earth then place in a chemical waste container.

### 6.1. Personal precautions

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus and wear appropriate personal protective equipment.

### 6.2. Environmental precautions

Dike spill. Prevent liquid from entering sewers, waterways or low areas.

### 6.3. Methods for containment

Dike spilled product.

### 6.4. Methods for Clean-up

Soak up with sand or earth. Sweep up material and dispose as waste following local regulations. Scrub contaminated area with detergent and water.

### 6.5. Other information

No information

### 6.6. Spill or leak statements by type of chemical

Eliminate all ignition sources. Use appropriate personal protective equipment (PPE). Absorb and/or contain spill with inert sand, then place in suitable container. For large spills; use water spray to disperse vapors and dilute spill to a nonflammable mixture. Do not flush to sewer. Prevent run-off from entering drains, sewers or waterways.

## 7. Handling And Storage

### 7.1. Handling

Avoid contact with eyes, skin and clothing. Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink. Do not dismantle container.

### 7.2. Storage

Keep containers tightly closed. Do not store the product in high or freezing temperatures. Keep the product out of direct sunlight. Do not store the product with metals, amines, free radical initiators, oxidising agents.

## 8. Exposure Controls/Personal Protection

### 8.1. Control parameters

Occupational Exposure Limits: Not specified.

**8.2. Exposure controls**

Occupational exposure control:	Provide general and/or local exhaust ventilation.
Personal protective equipment (PPE)	
Eye protection:	Wear safety glasses or chemical splash goggles.
Hand protection:	Use protective gloves. Recommended impervious gloves is butyl rubber glove.
Skin protection:	Wear protective clothing.
Respiratory protection:	In case ventilation is insufficient, employee must use NIOSH approved air purifying respiratory protection equipment. Use a half facepiece respirator (with goggles) or full face-piece respirator (without goggles) filtered with organic vapor cartridge. For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self contained air supply. <b>WARNING:</b> Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
General hygiene measures:	Wash hands after handling. In case contact with clothing, wash before reuse. Do not eat, drink or smoke in handling or storage area.

**9. Physical and chemical properties**

Appearance:	Clear liquid
Odour:	Slightly
pH:	No data available
Boiling point:	No data available
Flash point:	>100 °C
Flammability(solid, gas):	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Density:	No data available
Solubility:	Soluble
Water solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Viscosity:	No data available
Vapor density:	No data available
Evaporation rate:	No data available
Solids by weight:	No data available
Melting point:	No data available
Volatile organic compounds (VOC) content:	0 gram/liter

**10. Stability and Reactivity**

10.1. Reactivity:	No reactivity under normal temperature.
10.2. Chemical stability:	Stable under normal temperature
10.3. Possibility of hazardous reactions:	Not expected
10.4. Conditions to avoid:	No data available
10.5. Incompatible materials:	Avoid contact with acids, amines, free radical initiators, oxidizing agents.
10.6. Hazardous decomposition products:	Carbon monoxide, carbon dioxide, oxides of nitrogen, toxic gases/vapors.

## 11. Toxicological Information

Acute toxicity:

Oral LD50	No data available
Dermal LD50	No data available
Inhalant LC50	No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitisation: No data available

Germ cell mutagenicity: No data available

Reproductive toxicity: No data available

Carcinogenicity: None of the ingredients in this product is listed by IARC as a carcinogen. (1,2A and 2B)

STOT-single exposure: No data available

STOT-repeated exposure: No data available

Aspiration hazard: No data available

## 12. Ecological Information

Ecotoxicity: No data available

Persistence/Degradability: No data available

Bioaccumulation/Accumulation: No data available

Mobility in environment media: No data available

Other adverse effects: No data available

## 13. Disposal Considerations

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

## 14. Transport Information

14.1. UN Class/UN Number:

ADR/ADG/DOT, IMDG, or IATA : Not regulated

14.2. UN proper shipping name:

ADR/ADG/DOT, IMDG, or IATA : Not regulated

14.3. Transport hazard class(es):

ADR/ADG/DOT, IMDG, or IATA : Not regulated

14.4. Packing group:

ADR/ADG/DOT, IMDG, or IATA : Not regulated

14.5. Environmental hazards:

ADR/ADG/DOT, IMDG, or IATA : Not regulated

14.6. Special precautions for user:

Transport and storage of the product in accordance with general precautions and instructions mentioned in this SDS.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code:

Not regulated

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**15. Regulatory Information**

## US Information:

Toxic Substances Control Act (TSCA): All ingredients are listed on the TSCA Inventory.

California Proposition 65: Not regulated

SARA TITLE III: Not regulated

## EU Information:

Chemical Safety Assessment according to (EC)No. 1907/2006:

This product has not carried out any Chemical Safety Assessment yet.

## Australia Information:

Hazardous statement: Not classified as hazardous according to NOHSC criteria.

**16. Other information**

## NFPA 704: Hazard Rating System

Health - 1 , Flammable - 0 , Reactivity - 0

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

The information in this Safety Data Sheet (SDS) is believed to be correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is subject to revision as additional knowledge and experience is gained. Roland DG does not warrant the completeness or accuracy of the information contained herein.