
Safety Data Sheet

1. Product and Company Identification

Product name:

ADDITIVE, ZCH-100D
ADDITIVE, ZCH-250D

Manufacturer:

Address: Roland DG Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN

Phone: + 81-53-484-1224

Fax: + 81-53-484-1226

Supplier:

Address: DGSHAPE Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN

Phone: + 81-53-482-7069

Fax: + 81-53-424-6059

Distributor:

Address: Roland DGA Corporation
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:

Coolant

Date of issue:

30 May, 2019

2. Hazard Identification

2.1 Emergency Overview:

Appearance and odor: Clear liquid and slight odor

This product is not classified as hazardous according to GHS criteria.

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 0%

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

Eye: Contact with eye will be irritating.

Skin: Contact with skin may cause irritation, swelling or redness, allergic sensitization.

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

Ingestion: May cause injury of mouth, throat, and 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)

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 several 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: >212 °F

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

Hazardous decomposition products: Carbon monoxide, carbon dioxide, oxides of nitrogen, toxic gases/vapors.

Protective equipment and precautions for firefighters

Wear special chemical protective clothing and positive pressure self-contained breathing apparatus(SCBA). Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Decontaminate or discard any clothing that may contain chemical residues. Applying direct water may be dangerous because fire may expand to surroundings.

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. Put protection wear that has electrical conductivity in case of work. Keep out of reach of children and do not drink.

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 not sufficient, wear respiratory protection filtered with organic vapor cartridge.
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
odor:	Slightly
odor threshold:	No data available
pH:	No data available
melting/freezing point:	No data available
initial boiling point and boiling range:	No data available
flash point:	>212 °F
evaporation rate:	No data available
flammability:	No data available
vapor pressure:	No data available
vapor density:	No data available
specific gravity or relative density:	No data available
solubility in water:	Soluble
partition coefficient: n-octanol/water:	No data available
auto-ignition temperature:	No data available
decomposition temperature:	No data available
volatile organic compounds (VOC) content:	No data available

10. Stability and Reactivity

10.1. Reactivity:	No reactivity under normal temperature
10.2. Chemical stability:	Not expected
10.3. Possibility of hazardous reactions:	Stable under normal temperature.
10.4. Conditions to avoid:	Elevated temperatures/heat, UV light, when not in use.
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	≥ 5000mg/kg (rat, OECD423)
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

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

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.