

SAFETY DATA SHEET

Section 1: Identification

Product identifier used on the label;

Product name: QuartzDot (QD-GO)

Other means of identification;

No information

Recommended use of the chemical and restrictions on use;

Recommended use: Research and Development

Restrictions on use: No information

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party;

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Department in Charge: DEVELOPMENT SECTION

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Section 2: Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

Physical Hazards

Not classified

Health Hazards

Germ cell mutagenicity:

Category 1

Environmental Hazards

Not classified

Other Hazards

No information

Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200;

Symbol(s)



Signal word

Danger

Hazard Statement(s)

May cause genetic defects

Precautionary Statement(s)

[Prevention]

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

[Emergency response]

If exposed or concerned: Get medical advice/attention.

[Storage]

Store locked up.

[Disposal]

Dispose of contents/container in accordance with local/regional/national/international regulations.

Description of any hazards not otherwise classified;

No information

Ingredient with unknown acute toxicity in the mixture

Not applicable

Section 3: Composition/information on ingredients

Compositions (contents of the product)

Chemical name	CAS No.	Concentration/concentration ranges (wt %)
Water	7732-18-5	99.8 - 99.95
Silicon dioxide	7631-86-9	0.05 - 0.20
Rhodamine 6G	989-38-8	

Section 4: First-aid measures

Necessary first-aid measures by relevant routes of exposure;

IF INHALED

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If symptoms continue, call a doctor/physician.

IF ON SKIN

Remove contaminated clothing.

Rinse with plenty of water.

If symptoms continue, call a doctor/physician.

IF IN EYES

Immediately rinse cautiously with water for 15 - 20 minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms continue, call a doctor/physician.

IF SWALLOWED

Rinse mouth. Do not induce vomiting.

Drink one or two glass of clean water or milk.

Immediately get medical advice/attention.

If unconscious, do not give anything to the victim by mouth.

Most important symptoms/effects, acute and delayed;

May cause genetic defects.

Indication of immediate medical attention and special treatment needed, if necessary;

No information

Section 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media;

Suitable extinguishing media:

Use water mist, dry chemical powder, fire foam, carbon dioxide or direct water depending on fire in surrounding area.

Unsuitable extinguishing media

No information

Specific hazards arising from the chemical;

In case of fire, irritative or toxic gas may be generated.

Special protective equipment and precautions for fire-fighters;

Take action from windward.

Keep out except responsible personnel.

Move container to a safe area if it can be done without risk.

Cool the surrounding tank and the buildings with direct water jet to avoid risk of fire spreading.

Container may explode by fire exposure.

Section 6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures;

Keep out except responsible personnel.

Do not handle near open flame.

Wear suitable protective equipment (e.g., safety gloves, hazard mask, protective glasses, air aspirator) to prevent any contamination of skin or eyes.

Eliminate all ignition sources.

Do not touch or walk through spilled material.

Do not inhale fine particles, dust, mist, vapor or spray.

Avoid release into the environment because product may cause local effects.

Methods and materials for containment and cleaning up;

Stop leak if you can do it without risk.

In case of small amounts, cover spilled material with sand or incombustible material. Collect it in waste container made plastic.

If case of large amounts, prevent leakage and enclose by embankment. Collect it using a shovel or a suction machine.

Prevent to flowing into drains, sewers, basements or closed areas.

Section 7: Handling and storage

Precautions for safe handling

Protective measures:

Install appropriate equipment and wear suitable protective apparatus described in Section 8: Exposure controls/personal protection.

Do not handle near open flame.

Keep away from smoking, fire, heat or ignition source.

Use explosion-proof electrical/ventilating/lighting equipment.

Avoid contact with acid, alkalis, soft metals or reducing agent.

Ground container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid contact with eyes and skin.

Advice on general occupational hygiene:

Wash hands and face thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Technical measures:

Install light and ventilation in storage rooms which are necessary to storage or handle dangerous products.

Incompatible materials:

Acid, alkalis, soft metals, reducing agent

Conditions for safe storage:

Keep fire away.

Use an airtight and light resistant container.

Store in dry and well ventilated place indoor.

Packing material:

Use a sealed container without damage or leakage.

Section 8: Exposure controls/personal protection

Occupational Exposure Limits;

US OSHA PEL-TWA	5 mg/m ³ (Inert or nuisance dust) (Respirable fraction)
	15 mg/m ³ (Inert or nuisance dust) (Total dust)
ACGIH TLV-TWA (2016)	3 mg/m ³ (Insoluble respirable particles not other specified)
	10 mg/m ³ (Insoluble inhalable particles not other specified)

Appropriate engineering controls;

No information

Individual protection measures, such as personal protective equipment;

Respiratory protection Wear appropriate protective mask or air aspirator as required.

Hand protection	If hand contact is possible, wear protective gloves.
Eye protection	Wear safety glasses, goggles or face shield if in eyes.
Skin and body protection	Wear protective clothing and apron if necessary.

Section 9: Physical and chemical properties

Appearance (physical state, color, etc.)	Fine powder (aqueous dispersion)
Odor	No information
Odor threshold	No information
pH	7.5 - 9.5
Melting point/freezing point	No information
Initial boiling point and boiling range	No information
Flash point	No information
Evaporation rate	No information
Flammability (solid, gas)	No information
Upper/lower flammability or explosive limits	No information
Vapor pressure	No information
Vapor density	No information
Relative density	No information
Solubility (ies)	No information
Partition coefficient: <i>n</i> -octanol/water	No information
Auto-ignition temperature	No information
Decomposition temperature	No information
Viscosity	No information

Other information

No information

Section 10: Stability and reactivity

Reactivity

Stable under normal handling condition.

Chemical stability

Stable under normal handling condition.

Possibility of hazardous reactions

No hazardous reaction expected under normal handling.

May ignite, if contact with acid, alkalis, soft metals or reducing agent.

Conditions to avoid

Avoid sunlight and high temperature. Keep fire away.

Incompatible materials

Acid, alkalis, soft metals, reducing agent

Hazardous decomposition products

In case of fire, irritate or toxic gas (CO, CO₂, NO_x etc.) may be generated.

Section 11: Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics;

Information on product:

No information

Information on ingredients:

Rhodamine 6G

Acute toxicity (oral): Category 4

Acute toxicity (dermal): Category 4

Germ cell mutagenicity: Category 1

Specific target organ toxicity single exposure: This material may still be damaging to the health of individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident.

May be respiratory irritant if inhaled. May cause respiratory tract irritant.

Delayed and immediate effects and also chronic effects from short- and long-term exposure;

May cause genetic defects

Numerical measures of toxicity (such as acute toxicity estimates);

Not applicable

Whether the chemical is listed in the NTP Report on Carcinogens or has been found to be a potential carcinogen in the IARC Monographs, or by OSHA;

IARC: Not listed as Group 1, Group 2A or Group 2B

NTP Report: Not listed

OSHA: Not listed

Section 12: Ecological information

Ecotoxicity:

Information on product: No information

Information on ingredients: No information

Persistence and degradability:

Information on product: No information

Information on ingredients: No information

Bioaccumulative potential:

Information on product: No information

Information on ingredients: No information

Mobility in soil:

Information on product: No information

Information on ingredients: No information

Other adverse effects:

No information

Section 13: Disposal considerations

Waste treatment methods

Dispose of waste in accordance with applicable local, regional and international regulations and standards.

When disposing, consult to a certificated waste trader or local offices if they deal with the waste.

Used container should be recycled after cleaning or dispose of in compliance with related laws and local regulations.

Contents should be removed completely when dispose of empty containers.

Section 14: Transport information

UN number Not applicable

UN proper shipping name Not applicable

Transport hazard class(es) Not applicable

Packing group Not applicable

Environmental hazards Not applicable

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

Not applicable

Special precautions for user

When transporting, avoid direct sunlight and high temperature. Confirm no leakage to containers. When loading, prevent containers from falling, dropping off or damaging. Take preventive measures of collapse.

Section 15: Regulatory information

OSHA: Hazardous chemical

TSCA inventory: All ingredients in this product are listed on the TSCA Inventory.

TSCA SNUR: Not listed

SARA Title III: Section 302 (Extremely Hazardous Substances): Not listed

Section 304 (Hazardous Substances): Not listed

Section 313 (TRI Chemicals): Not listed

Clean Air Act: This product does not contain any substances regulated as hazardous air pollutants under Section 112 of the Clean Air Act.

Clean Water Act: This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act.

Section 16: Other information, including date of preparation or last revision

Update history:

Date of issue: 2nd Sep., 2016

References:

Information of FURUKAWA ELECTRIC ADVANCED ENGINEERING CO., LTD.
ACGIH, American Conference of Governmental Industrial Hygienists (2016) TLVs and BEIs.

[Disclaimer]

This SDS has been prepared based on the best available information however, it may not be sufficient in some cases. It is user's responsibility to modify or update any contents in this SDS regarding information on hazardous properties and/or instruction for safe handling of the product when they become available. Precautionary measures in this SDS are only applicable for normal handling conditions and it is necessary to take appropriate additional measures to ensure safe handling which depend on your specific use conditions or situations.