HEALTH HAZARDS

2.1  TK672
PHYSICAL HAZARDS Not classified

Category 2 (Respiratory tract irritation)

Specific target organ toxicity; single exposure Category 1 (Respiratory; Liver)

Carcinogenicity Category 2

Reproductive toxicity Category 1B

ENVIRONMENTAL HAZARDS

Aquatic toxicity (acute) Not classified

Aquatic toxicity (chronic) Category 4

Serious eye damages/eye irritation Category 2B

Skin sensitization Category 1

SYMBOL

SIGNAL WORD Danger

HAZARD STATEMENT

May cause allergic skin reaction.

Causes serious eye irritation.

May damage to respiratory.

May damage to eye and respiratory through prolonged or repeated exposure.
SYMBOL
SIGNAL WORD Danger

ENVIRONMENTAL HAZARDS
Aquatic toxicity (acute) Not classified
Aquatic toxicity (chronic) Category 4
Specific target organ toxicity; repeated exposure Category 1 (Respiratory
Kidney)
Specific target organ toxicity; repeated exposure Category 1 (Respiratory)
Skin sensitization Category 1
Carcinogenicity Category 2
Respiratory sensitization Category 1

May cause allergic skin reaction.

SIGNAL WORD Danger

HEALTH HAZARDS
2.4 Ni

PHYSICAL HAZARDS
May cause allergy or asthma symptoms or breathing difficulties if inhaled
Not classified
May cause long lasting harmful effects to aquatic life
May cause respiratory irritation
Suspected of causing genetic defects

SYMBOL
SIGNAL WORD Danger

HAZARD STATEMENT
May cause allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause cancer.
May damage to fertility or the unborn child.
May damage to respiratory and kidney.
May damage to respiratory through prolonged or repeated exposure.

Tanaka Kikinzoku Kogyo K.K. Hiratsuka Plant
No.T03-M-1
**CHEMICAL NAME**

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
</tr>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
</tr>
<tr>
<td>Cobalt</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
</tr>
<tr>
<td>Silver</td>
<td>7440-22-4</td>
</tr>
<tr>
<td>Tin</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
</tr>
</tbody>
</table>

**COMPONENTS**

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver</td>
<td>7440-22-4</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
</tr>
<tr>
<td>Tin</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
</tr>
</tbody>
</table>

**Hazard Statements**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer. May damage to respiratory and kidney. May damage to respiratory and eye through prolonged or repeated exposure.

**Precautionary Statements**

Use personal protective equipment as required. If on skin: Wash with plenty of soap and water. If in eye: Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

**First Aid Measures**

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If skin irritation occurs or feel unwell, get medical advice/attention. Immediately call a Poison Center. Rinse the patient mouth with water.

**Composition/Information on ingredients**

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
</tr>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
</tr>
<tr>
<td>Cobalt</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
</tr>
<tr>
<td>Silver</td>
<td>7440-22-4</td>
</tr>
<tr>
<td>Tin</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
</tr>
</tbody>
</table>

**Preventive Measures**

May cause allergic skin reaction. Causes eye irritation. If on skin: Wash off soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs or feel unwell, get medical advice/attention. If you feel unwell: Call a doctor.

**Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations (to be specified).

**Transport Information**

No. T03-M-1

**Health and Safety Data Sheet**

Tanaka Kikinzoku Kogyo K.K. Hiratsuka Plant

---

The content of the document is in Japanese, which is not shown here. It appears to be a safety data sheet for a chemical compound, providing information on its composition, hazards, and first aid measures. The data sheet also includes precautionary and disposal instructions.
**METHOD AND MATERIALS FOR CONTAINMENT AND CLEANING**

After recovery, neutralize the spilled area.

**PERSONAL PRECAUTIONS**

- Prohibit any person without wearing proper protection equipment from entering the spilled area.
- Ventilate the spilled area.

**ENGINEERING MEASURES**

- Keep containers tightly closed and store in well-ventilated areas.
- The storehouse should be locked.

**HANDLING AND STORAGE**

- Avoid inhalation of material or combustion byproducts.
- Use extinguishing agents appropriate for surrounding fire.
- Keep unnecessary people away, isolate the hazard area, and deny entry.
- Do not get water directly on material.

**FIRE AND EXPLOSION HAZARDS**

- Neatly fire and explosion hazard in the product form. Dust/air mixtures may ignite or explode.

**EXTINGUISHING MEDIA**

- Dolomite, dry powder for metal fires, dry sand, graphite, soda ash, sodium chloride.

**HANDLING**

- Solid state.

**ODOUR**

- Not applicable.

**DENSITY**

- No data.

**MELTING POINT**

- No data.

**PH**

- Wash hands thoroughly after handling.

**VAPOR PRESSURE**

- Not applicable.

**GASES**

- Not applicable.

**SPILLAGE MEASURES**

- The product is solid and spillage measures are not required.

**EXPOSURE LIMITS**

- TWA 0.02 mg/m³ (as Co)
- TWA 2 mg/m³ (as Sn)
- TWA 0.1 mg/m³

**PERSONAL PROTECTION**

- Chemical-resistant gloves.
- Industrial canister gas masks.
- Do not use in area without adequate ventilation and local exhaust ventilation.

**ENVIRONMENTAL PRECAUTIONS**

- Do not let this chemical enter the environment.

**REACTIVITY**

- Neatly fire and explosion hazard in the product form. Dust/air mixtures may ignite or explode.

**PHYSICAL AND CHEMICAL PROPERTIES**

- Odour: Not applicable.
- Density: No data.
- Melting point: No data.
- Ph: Not applicable.

**ENGINEERING MEASURES**

- Keep containers tightly closed and store in well-ventilated areas.
- The storehouse should be locked.

**HANDLING AND STORAGE**

- Avoid inhalation of material or combustion byproducts.
- Use extinguishing agents appropriate for surrounding fire.
- Keep unnecessary people away, isolate the hazard area, and deny entry.
- Do not get water directly on material.

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- Dolomite, dry powder for metal fires, dry sand, graphite, soda ash, sodium chloride.

**HANDLING**

- Solid state.

**ODOUR**

- Not applicable.

**DENSITY**

- No data.

**MELTING POINT**

- No data.

**PH**

- Wash hands thoroughly after handling.

**VAPOR PRESSURE**

- Not applicable.

**GASES**

- Not applicable.

**SPILLAGE MEASURES**

- The product is solid and spillage measures are not required.

**EXPOSURE LIMITS**

- TWA 0.2 mg/m³ (Copper, Fume)
- TWA 0.2 mg/m³ (as Mn)
- TWA 1.5 mg/m³ (I) (as Ni)
10. STABILITY AND REACTIVITY

STABILITY

Stable for normal storage and handling.

REACTIVITY

No data available.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

All information included in this MSDS is for appropriate use of the product defined above and is not applicable for a deviate use. This MSDS is not a document for guarantee against safety.

Disporsal in accordance with all applicable regulations.

Recommend for recycling by an expert company.

14. TRANSPORT INFORMATION

No data available.

Follow all regulation on the transport in your country or region.

15. REGULATORY INFORMATION

Regulatory information with regard to this preparation in your country or region should be examined by your own responsibility.
# Material Safety Data Sheet

**IDENTITY** SMD PACKAGE for 440

---

**Section I**

<table>
<thead>
<tr>
<th>Manufacturer's Name</th>
<th>Emergency Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KYOCERA CORPORATION</td>
<td>(075)604-3500 Head Office(Japan)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>Telephone Number For Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Tobadono-CHO, Takeda, Fushimi-KU, Kyoto 612-8501 Japan.</td>
<td>(075)604-3500 Head Office(Japan)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date Prepared</th>
<th>Contact Point: R. TAKADO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 27, 2012</td>
<td>Title: SMD PACKAGE DIV. Engineering Manager</td>
</tr>
</tbody>
</table>

---

**Section II - Hazardous Ingredient/Identity Information**

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS No.</th>
<th>ACGIH</th>
<th>Wt%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>Al2O3</td>
<td>1344–28–1</td>
<td>TLV:10mg/m3(as powder)</td>
</tr>
<tr>
<td>Silicon oxide</td>
<td>SiO2</td>
<td>7631–86–9</td>
<td>TLV:0.1mg/m3(as powder)</td>
</tr>
<tr>
<td>Chromium oxide</td>
<td>Cr2O3</td>
<td>1308–38–9</td>
<td>TLV:0.5mg/m3(as Cr)</td>
</tr>
<tr>
<td>Titanium oxide</td>
<td>TiO2</td>
<td>13463–67–7</td>
<td>TLV:10mg/m3(as powder)</td>
</tr>
<tr>
<td>PLATE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td>Au</td>
<td>7440–57–5</td>
<td>None</td>
</tr>
<tr>
<td>Nickel</td>
<td>Ni</td>
<td>7440–02–0</td>
<td>TLV:1mg/m3(as TWA)</td>
</tr>
<tr>
<td>METALLIZING</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tungsten</td>
<td>W</td>
<td>7440–33–7</td>
<td>TLV:5mg/m3(as TWA)</td>
</tr>
</tbody>
</table>
Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Appearance and Odo</td>
<td>Black (CERAMICS), Gold (PLATE) and no smell</td>
</tr>
</tbody>
</table>

Section IV - Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Method Used)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Extinguishing Media</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures</td>
<td>None</td>
</tr>
<tr>
<td>Unusual Fire and Explosion</td>
<td>Not combustible.</td>
</tr>
</tbody>
</table>

Section V - Reactive Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Unstable</td>
</tr>
<tr>
<td>Condition to Avoid</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>×</td>
</tr>
<tr>
<td>Incompatibility</td>
<td>Solder and pins react with strong acids</td>
</tr>
<tr>
<td>Hazardous Decomposition</td>
<td>None</td>
</tr>
<tr>
<td>Or Byproducts</td>
<td></td>
</tr>
<tr>
<td>Hazardous</td>
<td>May Occur</td>
</tr>
<tr>
<td>Condition to Avoid</td>
<td></td>
</tr>
<tr>
<td>Polymerization</td>
<td>Will Not Occur</td>
</tr>
<tr>
<td></td>
<td>×</td>
</tr>
</tbody>
</table>

Section VI - Health Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route(s) of Entry</td>
<td>Inhalation?</td>
</tr>
<tr>
<td></td>
<td>Skin?</td>
</tr>
<tr>
<td></td>
<td>Ingestion?</td>
</tr>
<tr>
<td></td>
<td>Will Not Occur</td>
</tr>
<tr>
<td>Health Hazards (Acute and Chronic)</td>
<td>Will Not Occur</td>
</tr>
<tr>
<td></td>
<td>Will Not Occur</td>
</tr>
<tr>
<td></td>
<td>Will Not Occur</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>NTP?</td>
</tr>
<tr>
<td></td>
<td>IARC Monographs?</td>
</tr>
<tr>
<td></td>
<td>OSHA Regulated?</td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Signs and Symptoms of Exposure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Medical Condition Generally Aggravated by Exposure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Emergency and First Procedures</td>
<td>First hold the eyelids open and flush the eyes with plenty of fresh water.</td>
</tr>
<tr>
<td></td>
<td>Then take a doctor.</td>
</tr>
</tbody>
</table>
Section VII  - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released of Spilled

Collect the material into a container for disposal.

Waste Disposal Method

Waste material can be disposed to bury according to Federal, State and Local Regulations.

Precaution to be Taken in Handling and Storing

Handling:

Do not drop material. Do not knock materials alternately or against hard solids.

Use gloves in case of touching to materials directly.

Storing: Indoor storage in dry condition. Keep apart from strong acids

Section VI  - Control Measure

Respiratory Protection (Specific Type)

Extra personal protection: P2 filter respirator for harmful particles, in case of heating in air

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maintain levels below ACGIH.</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Mechanical (General)</td>
<td>Not applicable</td>
<td>Other</td>
</tr>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

Protective Gloves

Use gloves

Eye Protection

Use safety goggles, in case of heating in air.

Other Protective Clothing or Equipment

Unnecessary

Work/Hygienic Practices

Depending on the degree of exposure, periodic medical examination is indicated.

<table>
<thead>
<tr>
<th>NAME</th>
<th>DRAWING No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFX-03</td>
<td>KD-VB0983-C</td>
</tr>
</tbody>
</table>
1. Product and company identification

Product name: Synthetic quartz crystal, substrate
Manufacturer: TOKYO DENPA CO., LTD.
Address: 020-0854 1-5-10, Kamiioka, Morioka-shi, Iwate, Japan
Name of Section: Product development department
Telephone number: 019-637-8100
FAX number: 019-637-3432

Date of issue: 14, May, 2012

2. Classification of danger and hazard

Name of classification: It doesn't correspond to the classification criterion.
Danger: Igniting and explosion hazard none of this material.
Static electricity might be worn when transporting with piping and the container of electro conductive and storing it. Therefore, take the electrification prevention measures when you treat the material of the flammability in surroundings.
Hazard: The silicosis is caused when sucking with the fine particle.
Environmental effects: There is no report.

3. Composition/Information on ingredients

Substance/Mixture: Substance
Chemical name: Synthetic quartz crystal
Ingredients and composition: 99.99%
Chemical formula: SiO2
Reference Number in Gazetted List in Japan:
Law Concerning the Examination and Regulation of Manufacture, etc of Chemical Substances
Japanese Chemical Substances Control Act: Off the subject
Occupational Health and Safety Law: 1-548
CAS No.: 7631-86-9
UN No.: There is no correspondence

4. First aid measures

Eye contact: Wash the affected areas under running water at least 15 minutes. It is noted that might damage the eyeball with the thing pointed out when washing it. When there...
are a pain and congestion, get medical attention.

Skin contact: Wash the body site that comes in contact in using enough of water, soap or the detergent for the skin. When the change is seen in externals or there is a pain, get medical attention.

Inhalation: Remove the victim to fresh Air, and make him blow his nose and gargle. When it is necessary, get medical attention.

Ingestion: The victim makes to the rest and get medical attention at once. The vomiting thing doesn't swallow.

5. Fire fighting measures

Extinction method: Nonflammable
Extinguishing media: There is no specification

6. Accidental release measures

The leakage thing is collected to the container that can be sealed up, and moved to the safe place. Treat waste based on applicable laws and regulations. Wear an appropriate protective equipment.

7. Cautions of handling and storage

Handling: To prevent the worker's inhalation, take the following treatment.
1. The generation of dust is prevented as much as possible.
2. Exhaust it locally.
3. The worker correctly wears the dust mask.

Storage: Avoid the place the high temperature and humidity.
Note the damage of the container to prevent the product from dispersing.

8. Exposure preventive measure

Material name: Silicon dioxide
Administrative levels: It doesn't correspond to working environment criterion.
Japan Society for Occupational Health Version in 1998
- TWA 2mg/m³ (Inhaled dust)
American Conference of Governmental Industrial Hygienists Version in 1997
- TWA 10mg/m³ (Total dust)
- STEL Unsetting
Occupational Safety and Health Act Version in 1993
- PEL 80mg/m³/%SiO₂

- Measures: To prevent the worker's inhalation, the following treatment is taken.
  1. The generation of dust is prevented as much as possible.
  2. Exhaust it locally.
  3. The worker correctly wears the dust mask.

- Protective equipment
  Respiration: Dust mask
  Eyes: Safety glasses or goggle
  Hands: Gloves that do not infiltrate organic solvent or chemical
9. Physical and chemical properties

- **Appearance**: Colorless, scentless solid
- **Melting point**: 1750 °C
- **Solubility**: It dissolves to the fluorinated acid and the strong alkali.
- **Volatile**: No data

10. Information on danger

- **Flash point**: none
- **Fire point**: none
- **Explosion limit**: Upper bound (%): none
  Lower bound (%): none
- **Flammability**: none
- **Ignition**: none
- **Oxidation**: none
- **Self-combustibility**: none
- **Explosiveness**: none
- **Dust explosiveness**: none
- **Stability and reactivity**: It dissolves to the fluorinated acid and the strong alkali.

11. Toxicological information

- **Acute toxicity**
  - Rat oral LD50: 3160mg/kg
  - Rat intraperitoneal LDL<sub>0</sub>: 50mg/kg
  - Guinea pig intraperitoneal LDL<sub>0</sub>: 120mg/kg
  - Rat vein LD50: 15mg/kg
  - Rat trachea LDL<sub>0</sub>: 10mg/kg
- **Carcinogenicity**: JSOH, OSHA, NTP, IARC
  There is not a description.
- **Mutagenicity**: Unscheduled DNA synthesis Rat trachea 120mg/kg
  Rat body fluid 120mg/kg
- **Others**: Oncogenesis Rat inhalation TCL<sub>0</sub> 50mg/m<sup>3</sup>/6h/2 year-l

12. Ecological information

- **Degradability**: Not available
- **Accumulation**: Not available
- **Fish toxicity**: Not available
- **Others**: Note handling because it might influence the environment when leaking and annulling it.

13. Disposal consideration

   Process it in conformity to “Waste Disposal and Public Cleaning Law”.

14. Consideration on transport
It follows the description of the paragraph of the attention when handling is kept.

- Fire and Disaster Management Act, Occupational Health and Safety Law, Poisonous and Deleterious Substance Control Law, According to transportation method established in each pertinent law.
- According to providing in Civil Aeronautics Act.

15. Applied law

- Food Sanitation Law

16. Others

About the description

There might be incompleteness in information because it investigates neither the entire material nor the document. Moreover, the change is caused by the announcement of a new finding in the content.

Whether the source is thoroughly examined when using it for the monumental decision is recommended to be confirmed by the examination.

Any guarantee is not done for data and the evaluation of the description.

The description matter is the one intended for usual handling. Please execute the security precaution that is appropriate for the usage newly when you do special handling.

References

* Kagakuhin hourei syuu, The Chemical Daily Co., Ltd. 1991
* DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS N.IRVING SAX 1991

It is not necessarily enough though this data is due to the finding at the time of making and note handling enough.
GHS Material Safety Data Sheet

MSDS No.: CR007192G
Date Issued: 2009/04/21
Last update: 2010/06/03

Section 1. Identification of the substance or mixture and of the supplier

1.1 Product Information
Product name: Chromium, target

| Product number | --target, Various sizes |

1.2 Company Information:
Manufacturer: Kojundo Chemical Laboratory Co., Ltd.
1-28, 5-chome, Chiyoda, Saitama-shi, Saitama Japan 330-0294
Phone: +81-49-284-1511 Fax: +81-49-284-1351
Emergency Phone: +81-49-284-1511

Section 2. Hazards identification

GHS Classification

<table>
<thead>
<tr>
<th>Respiratory sensitization: Category 1</th>
<th>Skin sensitization: Category 1</th>
<th>Specific target organ toxicity, single exposure: Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazards</td>
<td>Environmental Hazards</td>
<td>Physical Hazards</td>
</tr>
<tr>
<td>No data available</td>
<td>No data available</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

GHS Label: C, W

Pictograms or symbols

Warning word: **DANGER**

Hazard information
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.

Description of precaution
Wear protective gloves/protective clothing/eye protection/respiratory protection.
Avoid breathing dust/mist/vapors.
Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling.
Take off the contaminated clothing and wash before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Use only outdoors or in well-ventilated area.
If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If ON SKIN: Remove immediately all contaminated clothing and skin with soap and water. Then wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention.
If in the eyes: Call 911/IMMEDIATEly or doctor/physician if you feel unwell.
Protect from sunlight. Store in a cool, dry and well ventilated place.
Keep container tightly closed.
Dispose of contents/container in accordance with local/national regulations.

Kojundo Chemical Laboratory Co., Ltd.
Additional hazard information:
Hazard mainly originates in dusting.
With respect to additional hazard information, see Section 11.

Section 3. Composition / information on ingredients

<table>
<thead>
<tr>
<th>Chemical or common name</th>
<th>Chromium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical formula</td>
<td>Cr</td>
</tr>
<tr>
<td>Single Substance or Compound</td>
<td>Single substance</td>
</tr>
<tr>
<td>Composition</td>
<td>100%</td>
</tr>
<tr>
<td>CAS #</td>
<td>7440-47-3</td>
</tr>
<tr>
<td>RTECS®</td>
<td>GB400000</td>
</tr>
<tr>
<td>TSCA inventory</td>
<td>listed</td>
</tr>
<tr>
<td>EINECS®</td>
<td>2319795</td>
</tr>
</tbody>
</table>

Section 4. First aid measures

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lid. Continue to rinse for at least 15 minutes and get medical attention.
Skin contact: Promptly flush contaminated skin with soap or mild detergents and water. Contact physician if irritation continues.
Inhalation: Remove the exposed person immediately and provide fresh air. Get medical attention.
Ingestion: Rinse mouth and throat with water. Get medical attention immediately.

Section 5. Fire fighting measures

Raising/ extinguishing media: This product cannot catch fire. Use media appropriate for surrounding fire.
Fire fighting: The product is nonflamable.

Section 6. Accidental release measures

Personal Precautions: Workers should use protective wears to prevent contact with the split adhesive and inhalation of its vapor/dusts.
Environmental hazard precautions:
Shut off leak if without risk.
Prevent flow out to river, etc. so as not to badly affect.
Method for containment and cleaning up:
Indoor leakage: Ventilate as much as possible until the cleaning is completed.
Outdoor leakage: Work from the windward and evacuate the leeward crowd.
Gather up, pack in closed container as much as possible.
Carefully collect remnants and move to a safe place.

Kojundo Chemical Laboratory Co.,Ltd.
Section 7. Handling and storage

Precautions to be taken in handling:
Safe handling: Use protective wears and local ventilation equipment if inhalation or skin contact is foreseen.

Precautions to be taken in storage:
General precautions: Store in a cool, dry place away from incompatible materials.

Section 8. Exposure controls / personal protection

Exposure guideline:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH2008 TWA</th>
<th>OSHA2008 PEL TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chroium (Cr)</td>
<td>0.6 mg/m³</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

Facility measures: Local ventilation of closed work room or total proper ventilation to prevent inhalation.

Protective wear: Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, face shields, protective gloves.

Section 9. Physical and chemical properties

Color and Form: Metallic silver solid
Chemical formula: Cr
Atomic weight: 52.0
Melting point: 1907°C
Boiling point: 2677°C
Density: 7.19 g/cm³
Water solubility: insoluble
Flammability: non-flammable substance
Oxidation: None

Section 10. Stability and reactivity

Stability: Stable.
Reactivity:
Incompatibility: Strong acids, strong oxidizing agents.
Condition to avoid: No data available.

Section 11. Toxicological information

Hazards mainly originate in dusting.
Acute toxicity: GHS: No data available.
Skin corrosive / irritation: GHS: No data available.
Serious eyes damage / eye irritation: GHS: No data available.

Kojundo Chemical Laboratory Co., Ltd.
Respiratory sensitization: GHS: Category 1
My cause allergy or asthma symptoms or breathing difficulties if inhaled

Skin sensitization: GHS: Category 1
May cause an allergic skin reaction

Germ cell mutagenicity: GHS: No data available.

Carcinogenicity: GHS; Not classified; Falls below the lowest level.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>A4</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

IARC(2008) 3 Not classifiable as to its carcinogenic to humans.

Reproductive toxicity: GHS: No data available

Specific target organ toxicity
— Single exposure: GHS: Category 3
May cause respiratory irritation

Specific target organ toxicity
— Repeat exposure: GHS: No data available

Aspiration hazard: GHS: No data available

Section 12. Ecological information

Ecotoxicity:
Hazard to the aquatic environment—acute toxicity: GHS: No data available
Hazard to the aquatic environment—chronic toxicity: GHS: No data available

Fish toxicity: No data available
Degradability: No data available

Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Biological half-life (day)</th>
<th>Rate of absorption oral</th>
<th>Rate of absorption respiratory tract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cr</td>
<td>016</td>
<td>&lt; 0.006</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Ozone layer: No Freon or Halon.

Section 13. Disposal considerations

Disposal method: User of the product should contact with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.
Section 14. Transport information

UN classification: Non-hazardous
UN number: None
HS code: 8112.29
Marine pollution: None
Precautions: Container should be transported in a secure position, in a well-ventilated vehicle.

Section 15. Regulatory information

TSCA inventory: listed.
Please refer to any other local / national measures that may be relevant.

Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.
Material Safety Data Sheet

COMPANY AND CHEMICAL PRODUCT IDENTIFICATION

COMPANY : Tanaka Kikinzoku Kogyo K.K.
PLANT   : Tomioka Plant
ADDRESS : 820-1, Ichinomiya Aza-oshidashi, Tomioka, Gunma, 370-2452 Japan

SECTION TAKING CHARGE IN : Quality Control Section
Section chief : Tsuru Shuichi

TELEPHONE NUMBER : +81 - 274 - 62 - 5611
EMERGENCY TELEPHONE NUMBER : +81 - 274 - 62 - 5611

REVISION DATE : 29th Aug. 2008 (P001)

MSDS NUMBER : MSDS_0063 [P00_Au_4N_E]

CHEMICAL PRODUCT IDENTIFICATION, COMPOSITION AND INFORMATION ON INGREDIENTS

CHEMICAL FAMILY : Metal
SUBSTANCE : Au
COMPONENT : Au 99.99% up
ELEMENT AND PERCENTAGE : Au
CAS NUMBER : Au : 7440 - 57 - 5

HAZARDS IDENTIFICATION

HAZARDS RATINGS : No rating is suitable for the requirement.
PHYSICAL HAZARDS : Negligible fire and explosion hazard in bulk form.
MAJOR HEALTH HAZARDS : No significant target effects reported.
ECOLOGICAL HAZARDS : No significant target effects reported.

FIRST AID MEASURES

EYE CONTACT : Flush eyes with plenty of water, then get immediate medical attention.
SKIN CONTACT : Wash skin with soap and water while removing contaminated clothing. Get medical attention, if needed.
INHALATION : If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.
INGESTION : If a large amount is swallowed, get immediate medical attention.

FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS : Negligible fire and explosion hazard in the product form. Fine powder/particle may ignite or explode.
EXTINGUISHING MEDIA : dolomite, dry powder for metal fires, dry sand, soda ash, sodium chloride
FIRE FIGHTING : Keep unnecessary people away, isolate hazard are and deny entry.
Use extinguishing agents appropriate for surrounding fire.
Avoid inhalation of material or combustion byproducts.
SPILLAGE MEASURES : The product is solid and spillage measures are not required.
Fine powder/particle have to be recovered and kept in an inert gas atmosphere.
Keep the fine powder/particle away from hydrocarbons.
HANDLING AND STORAGE

HANDLING : Wear appropriate chemical resistance clothing and gloves for preventing discoloration. Pay heed to scratching and deformation by strike or impact. Do not change product shape by heating, lathing, polishing and other ways.

STORAGE : Vacuum packed and keep at room temperature. Store and handle in accordance with all current regulations and standards. Keep separate from incompatible substance.

EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMIT : No occupational exposure limits established.

VENTILATION : Provide local exhaust or process enclosure ventilation system.

PERSONAL PROTECTION

EYE PROTECTION : Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower.

GLOVES : Wear appropriate chemical resistant gloves.

CLOTHING : Wear appropriate chemical resistant clothing.

RESPIRATOR : Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory Protection is ranked in order from minimum to maximum. Consider warning properties before:

- Any dust, mist, and fume respirator.
- Any air-purifying respirator with high-efficiency particulate filter.
- Any powdered, air-purifying respirator with a high-efficiency particulate filter.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE : Solid

PHYSICAL FORM : Solid Plate

BOILING POINT : 2967 °C

MELTING POINT : 1063 °C

WATER SOLUBILITY : insoluble

COLOR : yellow

ODOR : Not available

VAPOR PRESSURE : Not applicable

SPECIFIC GRAVITY : 19.3 (water=1)

STABILITY AND REACTIVITY INFORMATION

REACTIVITY : Stable at normal temperature and pressure in the product form.

CONDITIONS TO AVOID : Avoid generating dust. Avoid heat, flames, sparks and other sources of ignition.

INCOMPATIBILITIES : Combustible materials, bases, halocarbons, halogens, peroxides, acids, oxidizing materials.

IGNITABILITY : Negligible hazard in the product form. Fine powder/particle may ignite or explode.

OXIDATION HAZARD : Negligible hazard in the product form. Fine powder/particle may ignite or explode.

SELF-REACTIVITY : Negligible self-reactivity in the product form.

SELF-EXPLOSIVITY : Negligible explosion hazard in the product form. Fine powder/particle may ignite or explode.

OTHER HAZARDS : Fine powder/particle may behave as an oxidation catalyst and accelerate reaction between hydrocarbon and oxygen in the air resulting explosion and fire.
## TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SKIN CONTACT</strong></td>
<td>Chronic exposure may cause localized argyria.</td>
</tr>
<tr>
<td><strong>ACUTE EXPOSURE</strong></td>
<td>Impregnation of the mucous membranes by fine particle may cause localized argyria.</td>
</tr>
<tr>
<td><strong>CHRONIC EXPOSURE</strong></td>
<td>Chronic exposure to dust of the alloy may cause a permanent localized discoloration of the skin.</td>
</tr>
<tr>
<td><strong>TUMORIGENIC DATA</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>GENITAL TOXICITY</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>DEFORMITY DATA</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>OTHERS</strong></td>
<td>No data available.</td>
</tr>
</tbody>
</table>

## ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DECOMPOSITION</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>ACCUMULATION</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>FISH TOXICITY</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>OTHER TOXICITY</strong></td>
<td>No data available.</td>
</tr>
</tbody>
</table>

## DISPOSAL CONSIDERATION

Recommend for recycling by an expert company. Disposal in accordance with all applicable regulations.

## TRANSPORT INFORMATION

No classification assigned. Pay heed to packing in order to prevent from scratching and deformation of the product.

## REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRTR CLASSIFICATION</strong></td>
<td>No classification assinged.</td>
</tr>
</tbody>
</table>

## REGARDING THE CONTENT

Contents of this MSDS are not obtained from all available materials and literatures therefore lack of information may exist. In addition to this, the information is revised and updated based on new discoveries/theories. For that reason, in case the information is used for an important matter, referring to further materials/literatures and confirming by experiments are highly recommended. All information included this MSDS is for appropriate use of the product defined above and is not applicable for a deviate use. This MSDS is not a document for guarantee against safety.

TANAKA KIKINZOKU KOGYO K.K. Tomioka Plant Quality Control Section
1. IDENTIFICATION

PRODUCT NAME
Issued Date: January 25, 2011
Issued Number:
ThreeBond 3303Y

NAME OF MANUFACTURER
Kenkyukanri 2878-3

ADDRESS
1456, Hazama-cho, Hachioji-shi, Tokyo, Japan

NAME OF SECTION
Administration Department Research Division

TEL / FAX NUMBER
+81-42-661-1367 / +81-42-669-7235

RECOMMENDED USE AND RESTRICTION ON USE
Adhesive and sealant

3. HAZARDS IDENTIFICATION

GHS CLASSIFICATION
PHYSICAL HAZARDS
Flammable liquids
Not classified

HEALTH HAZARDS
Serious eye damage/Eye irritation Category 2B
Skin sensitization Category 1
Germ cell mutagenicity Category 1B
Specific target organ toxicity after repeated exposure Category 1

ENVIRONMENTAL HAZARDS
Acute hazards to the aquatic environment Category 1
Chronic hazards to the aquatic environment Category 1

/SOLICIT WASTE DISPOSAL MANAGEMENT EXPERTS./

*Not above mentioned hazard classification items; Not classified or Not classifiable.

LABEL ELEMENTS

SYMBOL

SIGNAL WORD: Danger

HAZARD STATEMENT
H320 Causes eye irritation
H317 May cause an allergic skin reaction
H340 May cause genetic defects
H372 Causes damage to organs (Eye) through prolonged or repeated exposure
H401 Toxic to aquatic life
H411 Toxic to aquatic life with long lasting effects

NOTICE
SAFETY MEASURE
Use personal protection and ventilation equipment to avoid exposure, if necessary.
Wear appropriate chemical protectors; gloves, and/or glasses when handling.
Avoid release to the environment.

FIRST AID MEASURE
If you feel unwell, remove victim to fresh air and keep at rest in a position comfortable for breathing.
If on skin: Wash with plenty of soap and water. Remove contaminated clothing.
If skin irritation or rash occurs: Get medical advice, attention.
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.

STORAGE
Keep container tightly closed. Protect from direct sunlight. Store the product at moderate temperature.

DISPOSAL
Solicit waste disposal management experts.

GHS Hazard Communication is mentioned in accordance with Japanese Law.
3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE

Mixture

CHEMICAL COMPOSITION

INGREDIENTS Wt% Formula CAS Number
Silver powder 74 Ag 7440-22-4
Silicone resin, Epoxy resin 5 - 15 SiO₂ —
Silica 5 - 15 —
Mineral spirit 1 - 10 —
Ethanol < 1 CH₃CH₂OH 64-17-5

IMPURITIES AND STABILIZING ADDITIVES WHICH ARE THEMSELVES CLASSIFIED AND WHICH CONTRIBUTE TO THE CLASSIFICATION OF THE SUBSTANCE

No information

4. FIRST-AID MEASURES

IF INHALED

In case of poisoning, remove victim to fresh air, calm down, keep warm then get medical advice, attention.

IF ON SKIN

Wash soap and water. Remove contaminated clothing.

IF IN EYES

If skin irritation or rash occurs, get medical advice, attention.

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing, then get medical advice, attention.

IF SWALLOWED

Rinse mouth.

Get medical advice, attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Dry powder, alcohol-resistant foam and carbon dioxide extinguisher, dry sand, water spray

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

Workers should wear appropriate protectors (glasses, cloths, mask for poisonous gasses, etc.), then extinguish should be performed up wind.

SPECIFIC FIRE FIGHTING MEASURES

Workers may produce poisonous and irritated gasses upon a fire.

6. ACCIDENTAL RELEASE

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear appropriate protective equipment (refer to 8. Exposure Control / Personal Protection) to avoid contact to eyes, skin and inhalation.

ENVIRONMENTAL PRECAUTIONS, RECOVERY / NEUTRALIZATION

Take precaution to prevent product to flow into rivers and effect environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

In case of a small spill, absorb with dry sand, soil, sawdust, cloth, etc., then place in a sealable container.

In case of large spills, dike and prevent overflow. Guide to a safe place then dispose properly.

SECONDARY ACCIDENT PREVENTION MEASURE

All ignition sources should be quickly removed. (No smoking in vicinity, prohibit sparks or fire sources)

7. HANDLING AND STORAGE

HANDLING

ENGINEERING MEASURES

Wear protective equipment. Perform engineering measures in accordance with 8. Exposure Control / Personal Protection.

LOCAL VENTILATION

Perform local and general ventilation in accordance with 8. Exposure Control / Personal Protection.

SAFETY HANDLING PRECAUTIONS

Take precautions against fire

STORAGE

ENGINEERING MEASURES

Keep container tightly closed. Protect from direct sunlight. Store the product at moderate temperature.

Refer to the technical data, specifications, and a product label about handling range of temperature.

CONTAINER AND PACKAGING MATERIALS

Keep only in original container. Do not transfer the product to another container.
8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONTROL PARAMETERS

<table>
<thead>
<tr>
<th></th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver powder</td>
<td>0.1 mg/m³</td>
<td>0.01 mg/m³ (as Ag)</td>
</tr>
<tr>
<td>Silica</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Mineral spirits</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Ethanol</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

ENGINEERING MEASURES
If handling this product indoors, seal off sources or use a local mechanical ventilation system, etc. Place a safety shower, hand washing sink and an eye bath near work area and clearly marked.

PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION
Wear mask to prevent organic gas poisoning, if necessary.

HAND PROTECTION
Wear appropriate protective gloves (Polyethylene, rubber, etc., solvent impervious materials).

EYE PROTECTION
Use eye protection. (preferably goggles)

SKIN AND BODY PROTECTION
Wear personal protection apron, boots, if necessary. Do not work with short sleeve shirts.

SANITARY MEASURES
Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE

APPEARANCE
Paste

COLOR
Silver

ODOR
Distinctive odor

FLASHPOINT
Non-flammable

SOLUBILITY
Slightly soluble in water

VISCOSITY
40 Pa·s

PHYSICAL STATE as Silver

MELTING POINT/FREEZING POINT
960.5 °C (in Vacuum), 950°C (Equilibrium to oxygen)

BOILING POINT
1980°C

(SHIFT AND RANGE)

SPECIFIC GRAVITY (DENSITY)
10.49 (20°C), 9.4 (961°C, liquid)

PHYSICAL STATE as Silica

MELTING POINT/FREEZING POINT
1710 °C, 1600–1750 °C (Sublimation at 1750 °C)

BOILING POINT
2230°C

(SHIFT AND RANGE)

SPECIFIC GRAVITY (DENSITY)
2.65 (20°C)

SOLUBILITY
Water: 0.2g(100ml, 3N Ammonia water, 18 °C)
Slightly soluble in water

PHYSICAL STATE as Mineral spirits

FLASHPOINT
>30°C

PHYSICAL STATE as Ethanol

MELTING POINT/FREEZING POINT
Still no freeze at −117.3 °C, −100 °C

BOILING POINT
78.3°C

(SHIFT AND RANGE)

FLASHPOINT
13°C

EXPLOSION LIMIT
3.3% – 19.0%

VAPOR PRESSURE
5.33 kPa(20 °C)

VAPOR DENSITY
1.6 (Air =1)

10. STABILITY AND REACTIVITY

STABILITY
Reacts upon high temperature.

POSSIBLY HAZARDOUS REACTION
Suddenly reacts with strong oxidizers, strong inorganic bases.
When hardening in large quantity, product may generate a great deal of heat.
During sudden hardening a harmful gas is produced; may cause carbonization or decomposition.

CONDITION TO AVOID
High temperature during storage.

INCOMPATIBLE MATERIALS
Oxidizer, inorganic bases.

HAZARDOUS DECOMPOSITION
Incineration may produce poisonous gasses (Carbon monoxide, Metal fume, etc.) upon condition.
11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS
ACUTE TOXICITY No data as product
SKIN CORROSION/IRRITATION No data as product

Information on GHS Hazard Communication is in accordance with Japanese Law

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS
HAZARDS TO THE AQUATIC No data as product
ENVIRONMENT No data
ECOTOXICITY No data

Information on GHS Hazard Communication is in accordance with Japanese Law

13. DISPOSAL CONSIDERATIONS

METHOD OF DISPOSAL To dispose product, solicit waste disposal management experts.
Prohibited that to dispose the waste or waste liquid containing the product in the river, etc., to reclaim, to dump the product as it is.
CONTAMINATED CONTAINERS AND PACKAGING Handle in used container and cloth same as above.

14. TRANSPORT INFORMATION

INTERNATIONAL REGULATION
SEA TRANSPORTATION Not applicable
UN number Not applicable
AIR TRANSPORTATION Not applicable
UN number Not applicable

15. REGULATORY INFORMATION

Handle in accordance with applicable laws and regulations.

16. OTHER INFORMATION

Portions of the above evaluation of dangerous and harmful effects may be insufficient, please perform adequate investigation.
The content in this report is based on information which was available as of the Effective date.
But Three Bond Co., Ltd. and its affiliates are not responsible for guaranteeing the above data and evaluations.
The above data assumes usage under normal working conditions.
In case of special handling is required, please handle with suitable safety measures according to the application and usage.
The content in this report may change due to new evaluation and tests, etc.
In case there are differences in the translation, the Japanese language version takes precedence.