Safety data sheet for cold rolled steel

1. PRODUCT AND COMPANY IDENTIFICATION

Product name

Cold rolled steel strips, cold rolled special steel strips, hot rolled steel strips

Company name

Takasago Tekko K.K.

Address

1-1-1, Shingashi, Itabashi-ku, Tokyo

Telephone number +81-3-5399-8178 +81-3-3550-6320 Fax numbe

Emergency contact See above

2. HAZARDS IDENTIFICATION

♦ GHS classification:

<Potential health effects>

| Hazard item | Hazard category | Hazard information | | | | | | | |
|--|-----------------|---|--|--|--|--|--|--|--|
| Skin corrosion and irritation | Category 3 | Causes mild skin irritation (H316) | | | | | | | |
| Serious eye damages/eye irritation | Category 2B | Causes eye irritation (H320) | | | | | | | |
| Respiratory sensitization | Category 1 | May cause allergy or asthma symptoms or breathing difficulties if inhaled (H334) | | | | | | | |
| Skin sensitization | Category 1 | May cause an allergic skin reaction (H317) | | | | | | | |
| Germ cell mutagenicity | Category 1 | Suspected of causing genetic defects (H341) | | | | | | | |
| Carcinogenicity | Category 2 | Suspected of causing cancer (H351) | | | | | | | |
| Reproductive toxicity | Category 1B | Suspected of damaging fertility or the unborn child (H360) | | | | | | | |
| | Category 1 | Causes damage to respiratory organs or kidney (H370) | | | | | | | |
| Specific target organ toxicity (single exposure) | Category 2 | (Systemic toxicity) May cause damage to organs (H371) | | | | | | | |
| textenty (emigre expectate) | Category 3 | (Respiratory irritation) May cause respiratory irritation (H335) | | | | | | | |
| Specific target organ toxicity (repeated exposure) | Category 1 | Causes damage to respiratory organs or nervous system through prolonged or repeated exposure (H372) | | | | | | | |

<Potential environmental effects>

| Hazard item | Hazard category | Hazard information |
|----------------------------|--------------------|---|
| Aquatic toxicity (chronic) | Category 4 | May cause long-lasting harmful effects to aquatic life (H413) |

♦ GHS label elements:

<Pictograms>





<Signal words>

Danger, Caution

<Warning notes>

(Precautionary statements)

- •Do not handle until all safety precautions have been read and understood. (P202)
- ·Avoid breathing dust/mist. (P261)
- ·Wash hands thoroughly after handling. (P264)
- ·Use only outdoors or in a well-ventilated area. (P271)
- ·Wear protective gloves. (P280)
- •[In case of inadequate ventilation] wear respiratory protection. (P284)

(Emergency response)

•If on skin: Wash with soap and plenty of water. (P302 + P352)

•If inhaled: Remove person to fresh air and keep comfortable for breathing. (P304 + P340) ·If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. (P305 + P351 + P338) ·Call a physician if you feel unwell. (P312) •If skin irritation or a rash occurs, get medical advice/attention. (P333 + P313) •If eye irritation persists, get medical advice/attention. (P337 + P313) •If experiencing respiratory symptoms: call a physician. (P342 + P311) •Take off contaminated clothing and wash it before reuse. (P362 + P364) (Disposal) • Dispose of contents/containers in accordance with international, national, prefectural, or city regulations. (P501) 3 COMPOSITION/INFORMATION ♦Chemical substance or mixture classification: Mixture (iron-based alloy steel) ON INGREDIENTS ♦Main ingredients: ISH Law*2 PRTR I aw*1 Ingredient Content (wt%) CAS No. ICSC No. Cabinet order Cabinet order No. No. Silicon (Si) 0.0 to 2.0 7440-21-3 1508 Manganese (Mn) 0.0 to 2.0 7439-96-5 0174 Class 1 412 550 Nickel (Ni) 0.0 to 1.0 7440-02-0 0062 Class 1 308 418 Chrome (Cr) 0.0 to 2.0 7440-47-3 0029 Class 1 87 142 Molybdenum (Mo) 0.0 to 1.0 7439-98-7 Class 1 453 603 1003 Copper (Cu) 0.0 to 1.0 7440-50-8 0240 379 Residual quantity 7439-89-6 Note 1: Component contents will vary depending on the type of the standard within the range indicated in the table above. Note 2: In addition to the components listed above, includes trace elements such as carbon (C), phosphorus (P), sulfur (S) and nitrogen (N). *1 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof *2 Industrial Health and Safety Act Note 3: Classification; -; not applicable 4. FIRST AID MEASURES If dust or fumes emitted during the processing, etc., of steel materials are inhaled or ingested, or adhere to skin, carry out the following first aid measures. If necessary, obtain medical advice or attention from a physician. ♦If inhaled : Remove person to fresh air and keep comfortable for breathing. ♦If on skin : Wash with soap and plenty of water immediately. ♦If in eves : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsina ♦If swallowed : Rinse mouth thoroughly and immediately with water. : Keep skin wounds caused by steel cut ends or cuttings, etc., clean. In the event of burns from welding arcs, etc., cool the affected part. 5 FIREFIGHTING MEASURES The steel itself is in a non-flammable (solid) state. In the event of fire, fire extinguishers and water may be used. However, steel in fine powder form may be combustible or explosive. : Use fire extinguishing media appropriate for the circumstances. ♦Fire extinguishing media ♦Fire extinguishing media to avoid : No information 6. ACCIDENTAL RELEASE The steel itself is in a solid state, so no leakage will occur under normal circumstances. MEASURES In the event of the accidental release of dust or fumes during processing, etc., of steel materials, the following measures are to be carried out: ◆Personal precautions: : Wear suitable protective equipment and avoid inhaling dust or fumes or contact with eyes. ◆Protective equipment and : Refer to protective equipment described in 8. "EXPOSURE CONTROLS/PERSONAL emergency procedures PROTECTION." : Dust and similar residue generated by processing such as cutting and polishing must be ◆Environmental promptly collected. precautions ♦ Methods and materials : Dust and similar residue generated by the processing, etc., of steel materials must be collected in an appropriate manner and steps taken to prevent leaks.

7. HANDLING AND STORAGE

♦Handling:

up

<Technical measures>

containment and cleaning

In cases in which steel is to be welded, fused, polished, etc., wear appropriate protective equipment if dust, fumes, etc., may be generated. Additionally, if dust, fumes, etc., may be generated, use the necessary local exhaust and general ventilation.

<Pre><Precautions for safe handling>

Take care to prevent the overturn, collapse, or fall of heavy objects.

The cut ends, cuttings of steel, etc., may have burrs that could wound skin.

Arcs used in welding, fusing, etc., may cause burns.

When hoops and bands used in packaging are cut, the ends may spring up. Exercise special care when handling coiled products as the ends are prone to spring up.

♦Storage:

<Conditions for safe storage>

Avoid contact with water, acid, alkali, or any substances containing these.

Avoid environments of high temperature and high humidity. If necessary, use sheets, covers, and packaging to prevent rust or wetting by rainwater.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Since steel normally occurs in a solid state, there is no useful information regarding exposure controls and personal protection under ordinary circumstances.

However, when steel is welded, fused, polished, cut, etc., dust and fumes are generated, so the following equipment measures and protective measures must be taken:

*Acceptable concentrations:

| | | Japan Society for Occupational Health | AGCIH +1 |
|-----------------|-----------|--|------------------|
| Component | CAS No. | Acceptable concentration (mg/m3) | TLVs-TWA (mg/m3) |
| Silicon (Si) | 7440-21-3 | - | - |
| Manganese (Mn) | 7439-96-5 | 0.2 | 0.2 |
| Nickel (Ni) | 7440-02-0 | 1 | 1.5 |
| Chrome (Cr) | 7440-47-3 | 0.5 | 0.5 |
| Molybdenum (Mo) | 7439-98-7 | - | 10(I)/3(R)*2 |
| Copper (Cu) | 7440-50-8 | - | 1 *3/0.2 *4 |
| Iron (Fe) | 7439-89-6 | - | - |

Note 1: Search results from NITE HP/Chemical Risk Information Platform (CHRIP)

Note 2: The symbol "-" in the table means that the item is not in that category or could not be classified.

- *1 American Conference of Governmental Industrial Hygienists
- *2 (I): Inhalable fraction; (R): Respirable fraction
- *3 Dust and mists, as Cu
- *4 Fume

◆Facility and : Where dust, fumes, etc., are generated, appropriate ventilation measures must be provided and a equipment measures proper work environment secured.

 $\bullet \textbf{Protective equipment}: \textbf{Wear appropriate protective equipment, including respiratory protective equipment, protective} \\$

gloves, protective goggles, protective clothing, and safety shoes, in areas where dust, fumes, etc.,

9. PHYSICAL AND CHEMICAL PROPERTIES

◆Physical state, shape, color, etc.

: Silver white solid

♦Odor

: Metallic odor : 1,370°C or higher

◆Melting point◆Specific gravity (relative density)

: 7 to 9 g/cm3

♦Solubility

· Insoluble in water

10. STABILITY AND REACTIVITY

◆Stability

: Stable under normal conditions.

♦Possible hazardous reactions

: Contact with chemicals such as water and acid may cause oxygen shortage and $% \left(1\right) =\left(1\right) \left(1\right) \left($

generate harmful gases.

◆Conditions to avoid

: Avoid environments of high temperature and high humidity or contact with

incompatible hazardous substances.

♦Incompatible hazardous substances

: Oxidizing substances, etc.

♦Hazardous decomposition products

: Fumes generated during processing such as welding and fusing may contain metal $% \left(1\right) =\left(1\right) \left(1\right)$

compounds

11. TOXICOLOGICAL INFORMATION

| Hazard item | [Si] | [Mn] | [Ni] | [Cr] | [Mo] | [Cu] | [Fe] |
|---------------------------|------|------------|------|------|------|------|------|
| Acute toxicity | - | - | - | - | - | - | - |
| Skin corrosion/irritation | - | Category 3 | - | - | - | - | - |
| Serious eye damages/eye | | | | | | | |

| | | irritation | Category 2 | 2B | Catego | ory 2B | - | | Catego | ry 2B | - | - | - |
|--------------------------------------|------------|---|--|------------------------|-----------------------------|---------------------------------|-----------------------------|-----------------|------------|----------|----------------|--------------|-----------|
| | | Respiratory sensitization/skin sensitization | - | | - | | Catego | ory 1 | Catego | ry 1 | - | - | - |
| | | Germ cell mutagenicity | - | | - | | - | | Category 2 | | - | - | - |
| | | Carcinogenicity | - | | - | | Category 2 | | - | | - | - | - |
| | | Reproductive toxicity | - | | Catego | ory 1B | - | | - | | - | - | - |
| | | Specific target organ toxicity (single exposure) | - | | Catego | ory 1 | Catego | ory 1 | Catego | ry 2, | Category 3 | Category 3 | - |
| | | Specific target organ toxicity (repeated exposure) | - | | Category 1 | | Category 1 | | - | | - | Category 1 | - |
| | | Aspiration hazard | - | | - | | - | | - | | - | - | - |
| | No | ote 1: Search results from NI' ote 2: The symbol "-"in the ta ote 3: For information on cate | ble means | that | the ite | m is no | t in tha | t cate | gory or | could r | | ïed. | |
| 12. ECOLOGICAL INFORMATION | | Hazard item | | [| [Si] | [Mı | 1] | [Ni | i] [Cr] | | [Mo] | [Cu] | [Fe] |
| | | Aquatic toxicity (acute) | | - | | - | - | - | - | | - | - | - |
| | | Aquatic toxicity (chronic) | | - | | Catego | ory 4 | Catego | gory 4 - | | - | Category 4 | - |
| | No | ote 1: Search results from NI ote 2: The symbol "-" in the to ote 3: For information on cate | able means | that | t the ite | em is no | ot in tha | at cate | egory or | could | | fied. | |
| 13. DISPOSAL CONSIDERATIONS | | desidual waste: Dispose of in an environm prefectural or local bylaws soiled containers and packag Any pollutants adhering to manner that complies with | ing: o containers | orp | oackag | ing mu | st be di | spose | ed of as | residua | al waste, in a | an environme | |
| 14. TRANSPORTATION CONSIDERATIONS | No | ot applicable to the substance | e under inte | rnati | ional tr | ansport | ation c | ontrols | S. | | | | |
| 15. REGULATORY INFORMATION | ♦ A | ndustrial Safety and Health A act on Confirmation, etc. of R provements to the Managem | elease Amo | | s of Sp | ecific (| Chemic | al Sub | ostances | s in the | e Environmer | nt and Promo | tion of |
| 16. OTHER INFORMATION | ♦R | teference information, etc. JIS Z7253: Hazard commu Displays of labels and prov and Industry, Ministry of National Institute of Techn Workplace Safety site (Min | vision of SE Health, Lal ology and E | OS in bour Evalu | n PRTF and W uation (| R Law/IS /elfare, NITE) v | SH Law Octobe website | -GHS er 2012 | complia | | • | , , | my, Trade |

This data sheet contains reference information compiled to ensure safe product handling and to provide operators with information available to the company at the time the document was created. It does not represent a guarantee of product safety.

We ask operators to keep in mind that they should refer to this document and exercise their own discretion in implementing appropriate measures based on the actual circumstances that apply to their specific circumstances.

Safety data sheet for stainless steel

| 1. PRODUCT AND COMPANY | Produ | uct name | Stainless steel | | | | | | | | | |
|---------------------------|------------------------------|--|-----------------------|------------------|--------------------|--|--|--|--|--|--|--|
| IDENTIFICATION | Comp | pany name | Takasago Tekko K.K. | | | | | | | | | |
| | Addre | ess | 1-1-1, Shingashi, Ita | abashi-ku, Tokyo | | | | | | | | |
| | Resp | onsible department | Quality Assurance I | Dept. | | | | | | | | |
| | Telep | hone number | +81-3-5399-8178 | | | | | | | | | |
| | Fax number Emergency contact | | +81-3-3550-6320 | | | | | | | | | |
| | Emer | gency contact | See above | | | | | | | | | |
| 2. HAZARDS IDENTIFICATION | ♦ GH | S classification: | | | | | | | | | | |
| | | <potential effects="" health=""></potential> | | | | | | | | | | |
| | | Hazard item | Hazard | | Hazard information | | | | | | | |
| | | Hazaiù iteili | category | | nazard information | | | | | | | |
| | | | | | | | | | | | | |

| Skin corrosion and irritation | Category 3 | Causes mild skin irritation (H316) | | | | | | | |
|--|-------------|---|--|--|--|--|--|--|--|
| Serious eye damages/eye irritation | Category 2B | Causes eye irritation (H320) | | | | | | | |
| Respiratory sensitization | Category 1 | May cause allergy or asthma symptoms or breathing difficulties if inhaled (H334) | | | | | | | |
| Skin sensitization | Category 1 | May cause an allergic skin reaction (H317) | | | | | | | |
| Germ cell mutagenicity | Category 1 | Suspected of causing genetic defects (H341) | | | | | | | |
| Carcinogenicity | Category 2 | Suspected of causing cancer (H351) | | | | | | | |
| Reproductive toxicity | Category 1B | Suspected of damaging fertility or the unborn child (H360) | | | | | | | |
| | Category 1 | Causes damage to respiratory organs or kidney (H370) | | | | | | | |
| Specific target organ toxicity (single exposure) | Category 2 | (Systemic toxicity) May cause damage to organs (H371) | | | | | | | |
| , , , | Category 3 | (Respiratory irritation) May cause respiratory irritation (H335) | | | | | | | |
| Specific target organ | Category 1 | Causes damage to respiratory organs or nervous system through prolonged or repeated exposure (H372) | | | | | | | |
| toxicity (repeated exposure) | Category 2 | May cause damage to liver or lung through prolonged or repeated exposure (H373) | | | | | | | |

<Potential environmental effects>

| Hazard item | Hazard category | Hazard information |
|----------------------------|--------------------|---|
| Aquatic toxicity (chronic) | Category 4 | May cause long-lasting harmful effects to aquatic life (H413) |

♦ GHS label elements:

<Pictograms>





<Signal words>

Danger, Caution

<Warning notes>

(Precautionary statements)

- •Do not handle until all safety precautions have been read and understood. (P202)
- -Avoid breathing dust/mist. (P261)
- ·Wash hands thoroughly after handling. (P264)
- ·Use only outdoors or in a well-ventilated area. (P271)
- •Wear protective gloves. (P280)
- •[In case of inadequate ventilation] wear respiratory protection. (P284)

(Emergency response)

- •If on skin: Wash with soap and plenty of water. (P302 + P352)
- •If inhaled: Remove person to fresh air and keep comfortable for breathing. (P304 + P340)
- •If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.

 Continue rinsing. (P305 + P351 + P338)
- ·Call a physician if you feel unwell. (P312)
- If skin irritation or a rash occurs, get medical advice/attention. (P333 + P313)
- •If eye irritation persists, get medical advice/attention. (P337 + P313)
- •If experiencing respiratory symptoms: call a physician. (P342 + P311)
- •Take off contaminated clothing and wash it before reuse. (P362 + P364)

(Disposal)

Dispose of contents/containers in accordance with international, national, prefectural, or city regulations. (P501)

3. COMPOSITION/INFORMATION ON INGREDIENTS

- ♦Chemical substance or mixture classification: Mixture (iron-based alloy steel)
- ◆Main ingredients:

| Ingredient | Content (wt%) | CAS No. | ICSC No. | PRTR Law*1 Cabinet order No. | ISH Law*2 Cabinet order No. |
|----------------|---------------|-----------|----------|---------------------------------|-----------------------------------|
| Silicon (Si) | 0.0 to 5.0 | 7440-21-3 | 1508 | - | - |
| Manganese (Mn) | 0.0 to 10 | 7439-96-5 | 0174 | Class 1 412 | 550 |
| | | | | | |

| | Nickel (Ni) | 0.0 to 30 | 7440-02-0 | 0062 | Class 1 308 | 418 | | | | | | | |
|-----------------------------------|--|---|-----------------------|---------------------|--------------------|---|--|--|--|--|--|--|--|
| | Chrome (Cr) | 10 to 30 | 7440-47-3 | 0029 | Class 1 87 | 142 | | | | | | | |
| | Molybdenum (Mo) | 0.0 to 10 | 7439-98-7 | 1003 | Class 1 453 | 603 | | | | | | | |
| | Copper (Cu) | 0.0 to 5.0 | 7440-50-8 | 0240 | - | 379 | | | | | | | |
| | Niobium (Nb) | 0.0 to 1.0 | 7440-03-1 | - | - | - | | | | | | | |
| | Titanium (Ti) | 0.0 to 1.0 | 7440-32-6 | - | - | - | | | | | | | |
| | Aluminum (Al) | 0.0 to 5.0 | to 5.0 7429-90-5 - | - | - | - | | | | | | | |
| | Tungsten (W) | 0.0 to 1.0 | 7440-33-7 | - | - | 337 | | | | | | | |
| | Cobalt (Co) | 0.0 to 1.0 | 7440-48-4 | 0782 | Class 1 132 | 172 | | | | | | | |
| | Tin (Sn) | 0.0 to 1.0 | 7440-31-5 | 1535 | - | - | | | | | | | |
| | Iron (Fe) | Residual quantity | 7439-89-11 | - | - | _ | | | | | | | |
| | Note 1: Component contents | | | standard within the | range indicated in | the table above | | | | | | | |
| | nitrogen (N). *1 Act on Confirmation, etc. Improvements to the Manag *2 Industrial Health and Safe | Note 2: In addition to the components listed above, includes trace elements such as carbon (C), phosphorus (P), sulfur (S) and nitrogen (N). *1 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof *2 Industrial Health and Safety Act Note 3: Classification; -; not applicable | | | | | | | | | | | |
| 4. FIRST AID MEASURES | If dust or fumes emitted during the processing, etc., of steel materials are inhaled or ingested, or adhere to skin, carry out the following first aid measures. If necessary, obtain medical advice or attention from a physician. | | | | | | | | | | | | |
| | ♦If inhaled : Remove person to fresh air and keep comfortable for breathing. ♦If on skin : Wash with soap and plenty of water immediately. ♦If in eyes : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. ♦If swallowed : Rinse mouth thoroughly and immediately with water. ♦Other : Keep skin wounds caused by steel cut ends or cuttings, etc., clean. In the event of burns from welding arcs, etc., cool the affected part. | | | | | | | | | | | | |
| 5. FIREFIGHTING MEASURES | The steel itself is in a non-flammable (solid) state. In the event of fire, fire extinguishers and water may be used. However, state fine powder form may be combustible or explosive. | | | | | | | | | | | | |
| | ◆Fire extinguishing media ◆Fire extinguishing media to | | Jse fire extinguishir | ng media appropriat | e for the circumst | ances. | | | | | | | |
| 6. ACCIDENTAL RELEASE MEASURES | The steel itself is in a solid state, so no leakage will occur under normal circumstances. In the event of the accidental release of dust or fumes during processing, etc., of steel materials, the following measures are to be carried out: | | | | | | | | | | | | |
| | ◆Protective equipment and emergency procedures ◆Environmental precautions | nt and : Refer to protective equipment described in 8. "EXPOSURE CONTROLS/PERSONAL PROTECTION." : Dust and similar residue generated by processing such as cutting and polishing must be promptly collected. : Dust and similar residue generated by the processing, etc., of steel materials must be collected in an appropriate manner and steps taken to prevent leaks. | | | | | | | | | | | |
| 7. HANDLING AND STORAGE | | | | | | oment if dust, fumes, etc al exhaust and general | | | | | | | |
| | ventilation. <precautions for="" ha<="" safe="" td=""><td></td><td>.,, oto., may</td><td></td><td></td><td></td></precautions> | | .,, oto., may | | | | | | | | | | |
| | Take care to prevent the overturn, collapse, or fall of heavy objects. The cut ends, cuttings of steel, etc., may have hurs that could wound skip. | | | | | | | | | | | | |

The cut ends, cuttings of steel, etc., may have burrs that could wound skin.

When hoops and bands used in packaging are cut, the ends may spring up. Exercise special care when handling coiled

Arcs used in welding, fusing, etc., may cause burns.

products as the ends are prone to spring up.

♦Storage:

<Conditions for safe storage>

Avoid contact with water, acid, alkali, or any substances containing these. Avoid environments of high temperature and high humidity. If necessary, use sheets, covers, and packaging to prevent rust or wetting by rainwater. 8. EXPOSURE Since steel normally occurs in a solid state, there is no useful information regarding exposure controls and personal protection under CONTROLS/PERSONAL ordinary circumstances. **PROTECTION** However, when steel is welded, fused, polished, cut, etc., dust and fumes are generated, so the following equipment measures and protective measures must be taken: Acceptable concentrations Japan Society for AGCIH+1 Occupational Health Acceptable concentration CAS No. TLVs-TWA (mg/m3) Component (ma/m3) Silicon (Si) 7440-21-3 Manganese (Mn) 7439-96-5 0.2 0.2 Nickel (Ni) 7440-02-0 1 1.5 Chrome (Cr) 7440-47-3 0.5 0.5 Molybdenum (Mo) 7439-98-7 10(I)/3(R)*2 Copper (Cu) 7440-50-8 1 *3/0.2 *4 Aluminum (AI) 7429-90-5 1(R)*2 Tungsten (W) 7440-33-7 5 Cobalt (Co) 7440-48-4 0.05 0.02 Tin (Sn) 7440-31-5 2 Iron (Fe) 7439-89-6 Note 1: Search results from NITE HP/Chemical Risk Information Platform (CHRIP) Note 2: The symbol "-" in the table means that the item is not in that category or could not be classified. *1 American Conference of Governmental Industrial Hygienists *2 (I): Inhalable fraction; (R): Respirable fraction *3 Dust and mists, as Cu *4 Fume ♦Facility and : Where dust, fumes, etc., are generated, appropriate ventilation measures must be provided and a proper equipment measures work environment secured. ◆Protective equipment : Wear appropriate protective equipment, including respiratory protective equipment, protective gloves, protective goggles, protective clothing, and safety shoes, in areas where dust, fumes, etc., are generated. 9. PHYSICAL AND CHEMICAL ♦Physical state, shape, color, etc. : Silver white solid **PROPERTIES** ♦Odor : Metallic odor ♦Melting point : 1,370°C or higher ◆Specific gravity (relative density) : 7 to 9 g/cm3 **♦**Solubility : Insoluble in water 10. STABILITY AND ◆Stability : Stable under normal conditions. REACTIVITY ♦Possible hazardous reactions : Contact with chemicals such as water and acid may cause oxygen shortage and generate harmful gases. ◆Conditions to avoid : Avoid environments of high temperature and high humidity or contact with incompatible hazardous substances. ♦Incompatible hazardous substances : Oxidizing substances, etc. ♦Hazardous decomposition products : Furnes generated during processing such as welding and fusing may contain metal compounds. 11. TOXICOLOGICAL Hazard item [Si] [Mn] [Ni] [Mo] [W] [Co] [An] [Fe] [Cr] [Cu] [AI] INFORMATION Acute toxicity Skin corrosion/ Category irritation 3 Serious eye Category Category Category Category damages/eye 2B 2B 2B 2B irritation Respiratory sensitization/ Category Category Category

| | skin | itization | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------------|--|--|-------------------------------------|---------------------|--------|---------------|---------|---------------|---------------|--------|---------------|-------------|-------|---------|---------------|--------|---|---|
| | Gern | n cell | - | - | - | | Category 2 | - | | - | - | | - | - | | - | - | | |
| | Carc | Carcinogenicity - | | Carcinogenicity - | | - | Category - | | - | - | | - | - | | - | Category 2 | | - | - |
| | 11 . | Reproductive toxicity | | Catego 1B | iry _ | | - | - | | - | - | | - | Cat | tegory | - | - | | |
| | orgai (sing | Specific target organ toxicity (single exposure) Specific target organ toxicity (repeated exposure) | | organ toxicity (single | | Catego | Catego | ory | Category 2, 3 | Cate | gory | Category 3 | - | | - | Cat | tegory | - | - |
| | orgai (repe | | | Catego | Category Category 1 | | - | - | | Category 1 | Cat | egory | - | Cat | tegory | Category 1 | - | | |
| | Aspi | ration ird | - | - | - | | - | - | | - | - | | | | | - | - | | |
| | Note 2 | 1: Search ro 2: The sym 3: For inforr | bol "-"in | the table m | eans that t | the | item is not | in tha | t cate | egory or c | ould r | | classified. | | | | | | |
| 12. ECOLOGICAL INFORMATION | | Hazard item | | Si] [Mn] [N | | [Ni] [| | 10] [Cu | | ı] [ı | AI] | [W] | [Co] | | [Sn] | [Fe] | | | |
| | | Aquatic toxicity (acute) | - | - | - | - | - | | | | | - | - | | - | - | | | |
| | | Aquatic toxicity (chronic) Category 4 Category 4 Category 4 Category 4 Category 4 | | | | | | | ory | - | - | | | | | | | | |
| | Note 2 | 1: Search ro 2: The sym 3: For inform | bol "-" in | the table r | neans that | the | item is no | t in th | at cat | egory or | could | | classified. | | | | 1 | | |
| 13. DISPOSAL CONSIDERATIONS | I F Soile | dual waste: Dispose of prefectural of ed containe Any pollutar manner that | in an envor local burst and parts and parts adhe | oylaws. ackaging: ring to con | ainers or p | ack | aging mus | t be di | spos | ed of as r | esidua | al wast | e, in an en | viror | nmenta | | | | |
| 14. TRANSPORTATION CONSIDERATIONS | Not a | pplicable to | the sub | stance und | er internation | ona | l transporta | ation c | ontro | ls. | | | | | | | | | |
| 15. REGULATORY INFORMATION | ♦Act (| strial Safety on Confirmativements to | ation, etc | of Release | | s of | Specific C | Chemic | al Su | bstances | in the | e Envir | onment and | d Pro | omotior | n of | | | |
| 16. OTHER INFORMATION | •J | rence information IS Z7253: I | Hazard c | ommunica | | | | | | - | | - | | | conomy | , Trade and | i | | |

This data sheet contains reference information compiled to ensure safe product handling and to provide operators with information available to the company at the time the document was created. It does not represent a guarantee of product safety.

Industry, Ministry of Health, Labour and Welfare, October 2012)

National Institute of Technology and Evaluation (NITE) website

Workplace Safety site (Ministry of Health, Labour and Welfare)

We ask operators to keep in mind that they should refer to this document and exercise their own discretion in implementing appropriate measures based on the actual circumstances that apply to their specific circumstances.