

DatePrepared July,28,2005

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Material Safety Data Sheet

1. Chemical Products & Company Information

Lead-Free Solder

Chemical Product Name : **SN100CL**
 Company Name : Nihon Superior Co., Ltd.
 Address : 16 - 15 Esaka - Cho 1 - Chome Suita 564 - 0063 Japan
 Division : Quality Assurance
 TEL No. : 81-(6)-6380-1121
 FAX No. : 81-(6)-6380-1262
 Reference No. : 2098-NS

2. Summary of Hazards and Toxicity

GHS Classification

Acute Toxicity : Classification 5

GHS Label Element

Display Image or a Symbol : No display image

Attention-seeking Words : Warning

Hazards and Toxicity Information : This product may be hazardous in case of ingestion (Oral)

Caution Statement

Safety Measures : Do not use this product for other than soldering application.
 Do not use this product until you read and understand all the safety precautions.
 Do not eat and drink or smoke during soldering operation.
 Be sure to wash your hands before a meal or after completion of operation.
 Be sure to wear protective gloves and protective glasses.
 Avoid direct exposure by using personal protectors and a ventilator.
 Avoid inhaling dust.
 Avoid skin contact and inhalation of gas during soldering operation.
 Provide local ventilation during soldering operation.
 Avoid emission to environment.

First Aid Measures : Take appropriate fire extinguishing measures in case of fire.

In case of skin contact of flux during soldering operation, wash with plenty of water and mild soap after wiping off with alcohol.

In case of gas inhalation during soldering operation, remove to fresh air. Rest and keep warm.

In case of eye contact of gas during soldering operation, flush eyes carefully with plenty of water for several minutes.

Storage : Avoid such places with high temperature and high humidity and do not directly expose to the sun rays.

Disposal : All disposal methods must be in compliance with all Federal, State, Provincial and local laws and regulations.

Hazards Identification : Inhalation of gas during soldering operation may cause stimulation of throat & nose and feelings sick.

Effect on Environment : No relevant information found.

Physical and Hazardous Effect : No relevant information found.

Name of the Classification : Not applicable to any classification level.

3. Composition and Constituent Information

Single Product / Classification of Mixture : Mixture

Constituent	Content (mass%)	PRTR Law Number	CASN No.
Tin	Balance	—	7440-31-5
Copper	0.5~0.8	—	7440-50-8
Nickel	0.04~0.07	—	7440-02-0
Germanium	Below 0.01	—	7440-56-4

4. Emergency and First Aid Measures

Inhalation of Gas : Remove to the fresh air. Rest and keep warm.

Eye Contact of Gas : Flush with running water (or purified water) care fully for several minutes. If contact lens can be taken off easily, flush eyes without contact lens. In case irritation continues, seek medical attention.

Skin Contact of Flux : Wash with plenty of water and mild soap after removing the flux with alcohol.

5. Fire Fighting Measures

Fire-extinguisher : Powder, Carbon dioxide gas, Drying sand, etc.

Banned Fire-extinguisher : Water

Fire Fighting Measures : In case of fire, use appropriate fire extinguisher. Move the container to a safe location if possible. Keep unrelated personnel away and remove toward to the wind. Do not admit unrelated personnel to the fire places such as by drawing a rope.

Protection of Fire Fighters : In case of fire, be sure to wear an appropriate protector such as mask and

6. Accidental Release Measures

There is no spill and leak as it is solid.

7. Precaution for Handling and Storage

Handling : Before meal or after completion of operation, be sure to wash hands and gargle the throat. Provide local ventilator at the work area of soldering.

Storage : Avoid the place directly exposed to the sun rays. Store the container in a cool and dark place.

8. Exposure Controls, Personal Protection

Density Allowance : 2.0 [mg/m³] (Value as Tin content)

Facilities : Local ventilator, whole ventilator (during soldering operation)

Protective Equipments Inhalation : Safety face protective mask

Hands : Cotton gloves

Eyes : Goggles, Safety Glasses

9. Physical and Chemical Properties

Appearance : Solid

Color : Silver

Odor : None

Melting point : 227 °C

Specific Gravity : 7.4

10. Stability and Reactivity

Stability : Stable at room temperature
 Inflammability : None
 Ignitability : None
 Self Reactivity : None

11. Toxicological Information

Skin Corrosivity : None
 Irritant Properties (skin, eyes) : None

12. Ecological Information

No relevant information found.

13. Precaution for Disposal

All disposal methods must be in compliance with all Federal, State, Provincial and local laws and regulations.

14. Precaution for Transportation

Avoid dropping, impacting or otherwise roughly handling cargoes. Watch out for fire. Avoid such a place with high temperature and high humidity and do not directly expose to the sun rays.

UN Classification : Not applicable
 UN Number : Not available

15. Regulatory Information

Industrial Safety and Health Law : Section 18-2 Hazardous elements which should be disclosed
 (Tin and its compounds)
 (Copper and its compounds)

16. Other Information (Reference literature, etc.)

Reference Literatures : JIS Z 7250:2005 Material Data Safe Sheet (MSDS)

First Section : Order of contents and items

Display of chemical substances based on JIS Z 7251: 2006 GHS Japanese Standards Associations

* 『 13398 Chemical products 』 issued by The Chemical Daily Co., Ltd.

As all statements, and technical information contained herein are based on the data, or other information currently available to us, this sheet may be revised when new relevant information is acquired. In addition, we cannot guarantee content, physical and chemical properties, danger and toxicity. Precautions are intended for normal handling. In case of special handling, use this product with precautions appropriate for each purpose.