



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier.

Product: Nihon Superior SN100C4
Product use: Lead-free solder
Restriction of Use: Refer to Section 15.

New Zealand Supplier: Baskiville.com Ltd
Address: 16 Methven Chertsey Road
Methven
Telephone: +64 3 302 8703
Fax Number: +64 3 302 8706

**Emergency Telephone: 0800 764 766 (National Poison Centre)
0274768214**

Date of SDS Preparation: 6 April 2022

Section 2. Hazards Identification

This substance is hazardous according to the HSNO (Minimum degrees of Hazard) Regulations 2001

EPA Approval No: Metal industry products (toxic) – HSR002614

Signal Word: Danger

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1C	H301	Toxic if swallowed	Category 3
6.4A	H319	Causes serious eye irritation	Category 2A
6.5B	H317	May cause an allergic skin reaction	Category 1
6.6A	H340	May cause genetic defects	Category 1
6.9B	H373	May cause damage to kidneys and immune system through prolonged or repeated exposure	Category 2

Product Name: Nihon Superior SN100C4
Date issued: 6 April 2022

Issued by: Baskiville.com Ltd.
Tel: 0508 227548

9.1A	H400	Very toxic to aquatic life	Category 1
9.3B	H432	Toxic to terrestrial vertebrates	

Prevention Code	Prevention Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood
P260	Do not breathe in fumes
P264	Wash hands thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release into the environment
P280	Wear protective gloves and eye/face protection

Response Code	Response Statement
P301 + P310	IF SWALLOWED: immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: wash with plenty of soap and water
P305 + P351 + P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308 + P313	IF exposed or concerned: get medical advice/attention
P314	Get medical advice if you feel unwell
P330	Rinse mouth
P333 + P313	If skin irritation occurs: get medical advice/attention
P337 + P313	If eye irritation persists: Get medical advice/attention
P363	Wash contaminated clothing before reuse
P391	Collect spillage

Storage Code	Storage Statement
P405	Store locked up

Disposal Code	Disposal Statement
P501	Dispose of contents/container to be in accordance with local/regional/national/international regulations.

Section 3. Composition / Information on Ingredients

Ingredients	Wt.%	CAS Number
Tin	Balance	7440-31-5
Copper	3.6 ~ 4.4	7440-50-8
Nickle	0.04 ~ 0.07	7440-02-0
Germanium	Max 0.01	7440-56-4

Section 4. First Aid Measures

Routes of Exposure:

- If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
Immediately call a POISON CENTER/doctor.
If eye irritation persists, get medical advice/attention.
- If on Skin: Immediately wash skin with soap and plenty of water.
If skin irritation or rash occurs: Get medical advice/attention.
Get medical advice if you feel unwell.
Wash contaminated clothing before reuse.
- If Swallowed: Rinse mouth
Get immediate medical advice/attention.
- If Inhaled Remove person to fresh air and keep in comfortable for ease of breathing.
If exposed or concerned, call a POISON CENTER/doctor.
Get medical advice/attention if you feel unwell.

Section 5. Fire Fighting Measures

Hazard Type	Combustible
Hazards from combustion Products	Possibility of flowing molten metal (a melting point approx. 227-340°C) with excess heat. Possibility of toxic fume generation by decomposition due to combustion reaction and excess heat.
Suitable Extinguishing media	Use an extinguishing agent suitable for surrounding fire: Powder, Carbon dioxide gas, dry sand. Do not use: Straight stream water.
Precautions for firefighters and special protective clothing	Evacuate peoples to a safe place Rope off the fire area to prevent entry of people. Firefighting shall be done from the windward side Avoid leakage of the water discharge as much as possible for environmental considerations. Firefighting shall be done with an unmanned hose or monitor with nozzle at the farthest place from which the firefighting is still effective. It is desirable to use sealing and suffocation methods in

	extinguishing a metal fire. Fire fighters should wear breathing apparatus and chemically protective clothing.
HAZCHEM CODE	None allocated

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

- Wear appropriate protective equipment as specified in **Section 8. Exposure Controls/ Personal Protection.**
- Rope off the leakage place to prohibit the entry of the people
- Stay to the windward side of any fire
- Ventilate enclosed areas before entering
- If flowing around as a molten metal
 - Do not touch any container or leakage without appropriate protection.
 - Scoop up carefully the spilled material and place in a sealed container without creating dust after solidified and cooled

Environmental precautions and methods for containment and cleaning up:

- Avoid runoff, dispersal of spilled material and contact of spilled material with soil, waterways, drains and sewers, so as not to detrimentally effect the environment
- If it can be done without risk, stop leakage
- Sweep all spilled material or use an appropriate industrial cleaner.
- Always dispose of in accordance with local environment regulations

Secondary disaster prevention methods:

- Remove all ignition sources immediately, prohibit smoking and the lighting of fire nearby
- Avoid runoff into drains, sewers or basement rooms.

Section 7. Handling and Storage

Precautions for handling

- Wear appropriate protection when handling and during operation. **Refer to Section 8. Exposure Controls/Personal Protection**
- Do not use this product for any purpose other than soldering
- Do not handle until all safety precautions have been read and understood
- Do not breathe dust, fumes, vapours or mists
- Use only with adequate ventilation
- Do not cause leakage, spill, splashing or excess generation of vapour out of carelessness
- Do not get in eyes, on skin or clothing
- Contaminated work clothing should not be allowed out of the workplace
- Keep away from heat or ignition sources

- Wash hands thoroughly after handling
- Do not eat, drink or smoke when using

Precautions for storage:

- Keep away from oxidisers
- Avoid places with high temperature and humidity
- Do not directly expose to the sun's rays
- Always keep in an undamaged container to prevent unnecessary exposure.

Section 8. Exposure Controls / Personal Protection

Workplace Exposure Standards (provided for guidance only)

Substance	TWA mg/m ³	STEL mg/m ³
Tin	2 (tin and its inorganic compounds)	4
Copper	0.2 (fumes) 1 (dust or mist)	0.6 (fumes) 2 (dust or mist)
Nickle	1.5 (Nickle element, respirable fraction)	0.3 (Nickle element, respirable fraction)
Germanium	-	-

Workplace Exposure Standard – Time Weighted Average (WES – TWA). The time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard - Short-Term Exposure Limit (WES – STEL). The 15-minute average exposure standard. Applies to any 15-minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time weighted average exposures apply.

Engineering controls

If fumes or dust are generated during use exhaust ventilation for the whole room should be provided as well as local exhaust ventilation.

Personal Protection Equipment

Eyes	To provide facial protection against splashes standard equipment such as goggles should be worn.
Hands and Skin	Wear protective gloves and clothing as well as facial protection.
Respiratory	Wear respiratory protection, depending on the situation. If there is any possibility of exposure, wear respiratory protective equipment, air-supplied respirator, breathing apparatus, or the oxygen breathing apparatus.
General	Personal protection should be selected properly based on the task.

Section 9. Physical and Chemical Properties

Appearance	Solid bar/wire
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Odour	None
Vapour pressure	N/A
Vapour density	N/A
Relative Density	Approx. 7.4 (25°C)
Boiling Point	Data is not available
Melting Point	227°C (solidus) – 340°C (liquidus)
Freezing Point	N/A
Flash Point	None

Section 10. Stability and Reactivity

Stability of Substance	Stable at room temperature, in air
Conditions to avoid	Contact with incompatible materials
Incompatible materials	Strong oxidising materials, acids and organic peroxides
Hazardous Decomposition Products	Data is not available

Section 11. Toxicological Information

Acute Effects

Swallowed	Toxic if swallowed. Mixture calculation = LD ₅₀ = 232mg/kg
Dermal	Not applicable
Inhalation	Not applicable
Eye	Causes serious eye irritation
Skin	May cause allergic skin reaction

Chronic Effects

Carcinogenicity	Not applicable
Reproductive Toxicity	Not applicable
Germ Cell Mutagenicity	May cause genetic defects
Aspiration	Not applicable
STOT/SE	Not applicable
STOT/RE	Can cause damage to organ through prolonged or repeated exposure.

Section 12. Eco-toxicological Informational

This product is known to be hazardous to the environment

HSNO Classes 9.1A=Very toxic to aquatic life.

Persistence and Degradability	Data is not available
Bioaccumulation	Data is not available
Mobility in Soil	Data is not available
Other adverse effects	Data is not available

Tin (CAS: 7440-31-5)

LC50, 24 hrs, Fish, 78 mg/L

LC50, 48hrs, Crustacean, 55mg/L

LC50, 72hrs, Algae, 0.2mg/L

Copper (CAS: 7440-50-8)

LC50, 96hrs, Fish, 0.212mg/L

LC50, 48hrs, Crustacean, 0.44mg/L

LC50, 72hrs, algae, 0.0127mg/L

LC50, 36hrs, *strongylocentrotus*, 0.03mg/L

Nickle (CAS: 7440-02-0)

LC50, 72hrs, crustacean, 0.460mg/L

LC50, 96hrs, algae, 8mg/L

LC50, 96hrs, fish, 2.48mg/L

Section 13. Disposal Considerations

Disposal Method: Dispose of contents/container in accordance with local/regional/national/international regulation.

Precautions: Clean empty containers thoroughly before recycling, and remove all contents before dumping.

Disposal methods to avoid: Avoid dumping of the product where it could leak into soil, waterways, drains or sewers

Section 14. Transport Information

This product is not classified as a Dangerous Good for transport in New Zealand; NZS 5433:2012

Section 15. Regulatory Information

This substance is hazardous according to the HSNO (Minimum Degrees of Hazard) Regulations 2001

EPA Approval Code: **Metal industry products (toxic) – HSR002614**

HSNO Classification: 6.1C (oral), 6.4A, 6.5B, 6.9B, 9.1A, 9.3B

HSNO Controls	Trigger Quantity
Approved Handler	None
Location Certificate	None
Signage Trigger Quantities	100kg
Emergency Response Plan	100kg
Secondary Containment	100kg

Section 16. Other Information

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority.
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms
LEL	Lower Exposure Limit
OSHA	American Occupational Safety and Health Administration
TEL	Tolerable Exposure Limit
TLV	Threshold limit Value – an exposure limit set by responsible authority
UEL	Upper Exposure Limit
WES	Workplace Exposure Limit

Disclaimer

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