

# Material Safety Data Sheet

SN100C



## 1 . Product and company identification

**Common name** : SN100C  
**Product type** : Metal alloy  
**Validation date** : **10/28/2013.**  
**Contacts** : In Canada:  
AIM  
9100 Henri Bourassa East  
Montreal, QC  
H1E 2S4  
(514) 494-2000  
  
In the United States:  
AIM  
25 Kenney Drive  
Cranston, RI  
(800) CALL-AIM  
  
INFOTRAC - Emergency 24h  
North America: (800) 535-5053  
International: (352) 323-3500  
  
**In case of emergency** : INFOTRAC  
North America: (800) 535-5053  
International: (352) 323-3500

## 2 . Hazards identification

**Physical state** : Solid.  
**Odor** : Odorless.  
**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard ( 29 CFR 1910.1200).  
**Emergency overview** : Warning!  
Can cause target organ damage.  
**Potential acute health effects**  
**Eyes** : No known significant effects or critical hazards.  
**Skin** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.  
**Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Tin	7440-31-5	70 - 100

## 4 . First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes . Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Inhalation** : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air . Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

## 5 . Fire-fighting measures

- Flammability of the product** : Non-flammable.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special remarks on fire hazards** : Massive metal is nonflammable. Dust and powders may be flammable.

## 6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

## 7 . Handling and storage

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials ( see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

### Product name

Tin

### Exposure limits

**ACGIH TLV (United States, 1/2005).**

TWA: 2 mg/m<sup>3</sup> 8 hour(s). Form: All forms

**NIOSH REL (United States, 12/2001). Notes: Note: The REL and PEL also apply to other inorganic tin compounds (as Sn) except tin oxides.**

TWA: 2 mg/m<sup>3</sup> 10 hour(s). Form: All forms

**NIOSH (United States, 0/1994). Notes: Respirable**

TWA: 2 mg/m<sup>3</sup>

STEL: 4 mg/m<sup>3</sup>

**OSHA (United States, 0/1997). Notes: Respirable**

TWA: 2 mg/m<sup>3</sup>

**Consult local authorities for acceptable exposure limits.**

**Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

### Personal protection

**Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

**Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9 . Physical and chemical properties

<b>Physical state</b>	: Solid.
<b>Color</b>	: GRAY TO ALMOST SILVER-WHITE
<b>Odor</b>	: Odorless.
<b>Molecular weight</b>	: not available
<b>Boiling/condensation point</b>	: Not available
<b>Ionicity (in water)</b>	: Non-ionic.
<b>Dispersibility properties</b>	: Not dispersible in the following materials: cold water, hot water, methanol, diethyl ether, n-octanol, acetone.
<b>Solubility</b>	: Insoluble in the following materials: cold water, hot water, methanol, diethyl ether, n-octanol, acetone.

## 10 . Stability and reactivity

<b>Stability and reactivity</b>	: The product is stable.
<b>Conditions of instability</b>	: Stable in normal conditions. Over melting point, will emit toxic tin oxides.
<b>Incompatibility with various substances</b>	: Reactive or incompatible with the following materials: oxidizing materials, acids and moisture. Incompatibilities : CHLORINE, TURPENTINE, ACIDS, ALKALIS--NIOSH. Bromine, Bromine trifluoride, Chlorine, Chlorine trifluoride, Cupric nitrate, Potassium peroxide, Sodium peroxide, Sulfur, Ammonium nitrate, Bromine pentafluoride, Chlorates, Performic acid--NFPA 491M      Reactions with other materials :      Reactions with common materials : No data
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Hazardous polymerization</b>	: Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>Conditions of reactivity</b>	: Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Massive metal is nonflammable. Dust and powders may be flammable. Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.

## 11 . Toxicological information

<b>Chronic effects on humans</b>	: <b>CARCINOGENIC EFFECTS:</b> Classified None. by NIOSH [SN100C]. Causes damage to the following organs: lungs, upper respiratory tract, skin, eyes, eye, lens or cornea.
<b>Other toxic effects on humans</b>	: Very hazardous by the following route of exposure: of inhalation. Hazardous by the following route of exposure: of skin contact (irritant, sensitizer), of eye contact (irritant), of ingestion. Non-corrosive to skin. Non-permeator through skin.
<b>Special remarks on toxicity to animals</b>	: No additional remark.
<b>Special remarks on chronic effects on humans</b>	: Prolonged and repeated exposure to tin oxide fumes may result in benign pneumoconiosis (stannosis).
<b>Special remarks on other toxic effects on humans</b>	: <b>MOLTEN METAL can cause severe BURNS!</b> Fumes and dust may irritate eyes, digestive system and respiratory tract.
<b>Specific effects</b>	
<b>Carcinogenic effects</b>	: No known significant effects or critical hazards.
<b>Mutagenic effects</b>	: No known significant effects or critical hazards.
<b>Teratogenicity / Reproductive toxicity</b>	: No known significant effects or critical hazards.
<b>Sensitization</b>	
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Inhalation</b>	: No known significant effects or critical hazards.

## 11 . Toxicological information

- Eyes** : No known significant effects or critical hazards.  
**Skin** : No known significant effects or critical hazards.

## 12 . Ecological information

- Environmental precautions** : No known significant effects or critical hazards.  
**Products of degradation** : Some metallic oxides.  
**Toxicity of the products of biodegradation** : The products of degradation are more toxic.

## 13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
<b>DOT Classification</b>	Not regulated	-	-	-		-
<b>TDG Classification</b>	Not regulated	-	-	-		<b>Special provisions</b> No additional remark.
<b>ADR/RID Class</b>	Not available.	-	-	-		-
<b>IMDG Class</b>	Not available.	Not available.	Not available	-		-
<b>IATA-DGR Class</b>	Not regulated	-	-	-		-

PG\* : Packing group

## 15 . Regulatory information

### United States

- HCS Classification** : Target organ effects  
**U.S. Federal regulations** : **United States inventory (TSCA 8b)**: Not determined.  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: SN100C  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: SN 100C: Immediate (acute) health hazard  
**Clean Water Act (CWA) 307**: COPPER

## 15 . Regulatory information

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

### State regulations

- : **Connecticut Carcinogen Reporting:** None of the components are listed.
- : **Connecticut Hazardous Material Survey:** None of the components are listed.
- : **Florida substances:** None of the components are listed.
- : **Illinois Chemical Safety Act:** None of the components are listed.
- : **Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
- : **Louisiana Reporting:** None of the components are listed.
- : **Louisiana Spill:** None of the components are listed.
- : **Massachusetts Spill:** None of the components are listed.
- : **Massachusetts Substances:** None of the components are listed.
- : **Michigan Critical Material:** None of the components are listed.
- : **Minnesota Hazardous Substances:** None of the components are listed.
- : **New Jersey Hazardous Substances:** None of the components are listed.
- : **New Jersey Spill:** None of the components are listed.
- : **New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
- : **New York Acutely Hazardous Substances:** None of the components are listed.
- : **New York Toxic Chemical Release Reporting:** None of the components are listed.
- : **Pennsylvania RTK Hazardous Substances:** None of the components are listed.
- : **Rhode Island Hazardous Substances:** None of the components are listed.

### Canada

#### WHMIS (Canada)

- : Not controlled under WHMIS (Canada).
- : **CEPA Toxic substances:** None of the components are listed.
- : **Canadian ARET:** None of the components are listed.
- : **Canadian NPRI:** None of the components are listed.
- : **Alberta Designated Substances:** None of the components are listed.
- : **Ontario Designated Substances:** None of the components are listed.
- : **Quebec Designated Substances:** None of the components are listed.

This product has been classified in accordance with the hazard criteria of the **Controlled Products Regulations** and the MSDS contains all the information required by the **Controlled Products Regulations**.

### EU regulations

Hazard symbol or symbols :



#### Risk phrases

- : R36/38- Irritating to eyes and skin.
- : R43- May cause sensitization by skin contact.

#### Safety phrases

- : S24- Avoid contact with skin.
- : S37- Wear suitable gloves.

### International regulations

#### International lists

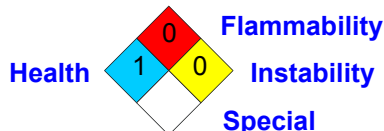
- : **Australia inventory (AICS):** Not determined.
- : **China inventory (IECSC):** Not determined.
- : **Japan inventory:** Not determined.
- : **Korea inventory:** Not determined.
- : **New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- : **Philippines inventory (PICCS):** Not determined.

## 16 . Other information

**Hazardous Material Information System (U.S.A.)** :

Health	
Fire hazard	0
Reactivity	0
Personal protection	

**National Fire Protection Association (U.S.A.)** :



**References**

- : - CHEMTOX database - IATA, Dangerous Goods Regulations, 37th edition (January 1, 1996) -ACGIH, Threshold Limit Values, 1994-1995. -Canada Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List". -CFR29, OSHA's Permissible Exposure Limits, revision July, 1993. - CFR29, part 1910.1200, Hazard Communication. -Components' manufacturer's Material Safety Data Sheet. -CRC Handbook of chemistry and physics, 67 th edition, CRC Press inc., Boca Raton, Florida. -CSST (Comission de Santé et Sécurité au Travail), document #RT-12: Classification of Certain Chemical Substances. -NFPA, Fire Protection Guide to Chemical Hazards, 11th edition. -NIOSH, Pocket Guide to Chemical Hazards, revision June 1994. Sigma-Alrich handbook of fine chemicals, 1998 -TSCA (Toxic Substance Contral Act), Chemical Substance Inventory List, 1985.

**Other special considerations**

: No additional remark.

**Date of printing**

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**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.