

IDENTITY CERASOLZER #186	No. 910019	Revision B
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Section I

Manufacturer's Name Senju Metal Industry Co., Ltd.	
Address 23, Senju-Hashido-cho, Adachi-ku, Tokyo, Japan 120-8555	Telephone Number for Information 03(3765)2682
	Data Prepared Mar., 12, 2002
	Signature of Prepare

Section II - Hazardous Ingredients/Identity Information

Hazardous Components	CAS No.	OSHA PEL	ACGIH TLV	%
Tin	7440-31-5	2 mg/m3	2 mg/m3	56
Lead	7439-92-1	0.05 mg/m3	0.05 mg/m3	39
Zinc	7440-66-6	NE	NE	3
Antimony	7440-36-0	0.5 mg/m3	0.5 mg/m3	1
Al, Ti, Si, Cu				1

Section III - Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity ( H2O = 1 )	8.9
Vapor Pressure ( mm Hg )	NA	Melting Point ( °C ) ALLOYS	186
Vapor Density ( AIR = 1 )	NA	Evaporation Rate ( Butyl Acetate = 1 )	NA

Solubility in Water  
Insoluble

Appearance and Odor  
Silver-gray metal, odorless.

Section IV - Fire and Explosion Hazard Data

Flash Point ( Solvent used in this flux ) NA	Flammable Limits	LEL ----	UEL ----
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Extinguishing Media  
Carbon dioxide and/or dry chemical

Special Fire Fighting Procedures  
Use self-contained breathing apparatus and full protective clothing for fires in enclosed areas.

Unusual Fire and Explosion Hazards  
When heated to high temperatures, lead emits highly toxic fumes.

**Section V - Reactivity Data**

**IDENTITY** Cerasolzer #186

Stability	Unstable		Conditions to Avoid Keep away from heat, sparks and open flames.
	Stable	X	

**Incompatibility** Strong oxidizing materials, acids, hydrogen peroxide.

**Hazardous decomposition or Byproducts** lead oxide fume.

Hazardous Polymerization	May Occur		Conditions to Avoid	NA
	Will Not Occur	X		

**Section VI - Health Hazard Data**

**Route of Entry:** Inhalation Skin Ingestion

**Health Hazards**  
When heated, vapors can cause irritation to eyes, nose and throat. May cause headache.

The chief effects of excessive lead intake are anemia, neurological disorders, and kidney damage.

**Carcinogenicity:** Not listed NTP IARC Monographs OSHA Regulated

**Signs and Symptoms of Exposure** Symptoms of the neurological effects may include irritability, headaches, insomnia, delirium, convulsion, muscular tremors, and palsy of the extremities.

**Medical Conditions**  
Generally Aggravated by Exposure

**Emergency and First Aid Procedures**  
**Inhalation:** Excessive overexposure may result in an acute or chronic illness. If symptoms are present, the individual should be removed from exposure and a physician consulted.

**Ingestion:** Call a physician at once.

**Skin:** For hot metal burns, exposed area should be cooled with water and get medical attention. After handling solder, wash thoroughly with soap and water.

**Section VII - Precautions for Safe Handling and Use**

**Step to Be Taken in Case Material is Released or Spilled**  
Avoid inhalation of solder fume or dust. Vacuuming is recommended.

**Water Disposal Method**  
Contact supplier or a licensed chemical waste disposal contractor for treatment, packaging, and disposal requirements.

**Precautions to Be Taken in Handling and Storing**  
Avoid breathing smoke during soldering. Wash hands before eating or smoking after handling solder.

**Other Precautions**

**Section VIII - Control Measures**

**Respiratory Protection**  
A NIOSH approved dust/fume respirator should be worn where applicable limits may be exceeded.

Ventilation	Local Exhaust	Remove smoke from breathing area	Special	Not required
	Mechanical		Other	

<b>Protective Gloves</b> Use plastic or rubber gloves and aprons where necessary to avoid skin contact.	<b>Eye protection</b> Safety glasses or goggles should be worn in areas where splashing may occur.
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**Other Protective Clothing or Equipment**  
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV's.

**Work/Hygienic Practices**