

## SAFETY DATA SHEET

Date of issue      Apr 11, 2011  
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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name            SOLDER CREAM ZERO NP303-COSMO-ZQ-C

#### Company Identification

Name of Supplier      NIHON GENMA MFG. CO., LTD.  
Address of Supplier    16-4, Mitsuyakita-2, Yodogawa-Ku, Osaka, Japan  
Department in charge   Technical department  
Person in charge       Junichi Takenaka  
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SDS No.                  SDS- E110404  
Recommended and restrictions of use of the products                    Soldering process

### 2. HAZARD IDENTIFICATION

#### GHS Classification

	<Physical Hazards>			<Health Hazards>	
Explosives	Not Applicable			Acute toxicity, oral	Not Classified
Flammable gases	Not Applicable			Acute toxicity, dermal	Not Classified
Flammable aerosols	Not Applicable			Acute toxicity [inhalation:gas]	Not Classified
Oxidizing gases	Not Applicable			Acute toxicity [inhalation:vapor]	Not Classified
Gases under pressure	Not Applicable			Acute toxicity [inhalation:dust and mist]	Classification Not Possible
Flammable liquids	Not Applicable			Skin corrosion/irritation	Not Classified
Flammable solids	Classification Not Possible			Eye damage/irritation	Category 1
Self-reactive substances and liquids	Not Applicable			Respiratory sensitization	Classification Not Possible
Pyrophoric liquids	Not Applicable			Skin sensitization	Category 1
Pyrophoric solids	Not Applicable			Germ cell mutagenicity	Not Classified
Self-heating substances and mixtures	Not Applicable			Carcinogenicity	Not Classified
Substances and mixtures which, in contact with water, emit flammable gases	Classification Not Possible			Reproductive toxicity	Not Classified
Oxidizing liquids	Not Applicable			Specific target organ toxicity (single exposure)	Category 2
Oxidizing solids	Not Applicable			Specific target organ toxicity (repeated exposure)	Category 1
Organic peroxides	Not Applicable			Aspiration hazard	Classification Not Possible
Substance and mixtures corrosive to metals	Classification Not Possible			<Environmental Hazards>	
				Hazardous to the aquatic environment-Acute hazard	Not Classified
				Hazardous to the aquatic environment-Chronic hazard	Not Classified

Label Elements

Symbols/Pictograms



Signal Word

Danger

Hazardous Information

- H317 May cause an allergic skin reaction
- H318 Causes serious eye damage
- H371 May cause damage to organs
- H372 Cause damage to organs through prolonged or repeated exposure
- H373 May cause damage to organs through prolonged or repeated exposure

Instructions

- Precaution**
- Do not breathe dust/fume/gas/mist/vapours/spray. (P260)
  - Avoid breathing dust/fume/gas/mist/vapours/spray. (P261)
  - Wash hands thoroughly after handling. (P264)
  - Do not eat, drink or smoke when using this product. (P270)
  - Contaminated work clothing should not be allowed out of the workplace. (P272)
  - Wear protective gloves/protective clothing/eye protection/face protection. (P280)
- Reponse**
- IF ON SKIN: Wash with plenty of soap and water. (P302+P352)
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
  - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. (P309+P311)
  - Immediately call a POISON CENTER or doctor/physician. (P310)
  - Get medical advice/attention if you feel unwell. (P314)
  - If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)
  - Wash contaminated clothing before reuse. (P363)
- Storage**
- Store in a container hermetically sealed. (P405-1)
- Disposal**
- Dispose of contents/container to in accordance with local/regional/national/international regulations. (P501)

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Single Substance or Mixture      Mixture  
Chemical name      Solder paste

Composition

Material name	Chemical formula	CAS No	Official file number	Content wt%
Tin	Sn	7440-31-5	-	85.4
Silver	Ag	7440-22-4	-	2.7
Copper	Cu	7440-50-8	-	0.44
Modified rosin	-	Trade secret	7-946	2.6
Modified rosin	-	Trade secret	7-937	1.8
Solvent (glycol type)	-	Trade secret	7-97	3.6
Additive	-	-	-	1
Additive	-	-	-	2.46

4. FIRST-AID MEASURES

- Eye contact**      Flush eye well with plenty running water for 15 minutes, including under eyelids. See physician.
- Skin contact**      Wash with plenty of soap and water.
- Inhalation**      Remove to fresh air and call physician.
- Ingestion**      Spit out promptly and receive treatment by doctor in case necessary afterwards.

### 5. FIRE-FIGHTING MEASURES

Extinguishant	Dry chemical, airfoam, carbon dioxide.
Specific fire fighting method	Fire fighting perform from the windward and remove in flammables.
Prohibited extinguisher	"Water" For melted metal to pour water is strictly prohibited.
Protection for fire fighters	Stand in the windward, wear tools for protection for breathing and do not inhale outbreak gas.

### 6. ACCIDENTAL RELEASE MEASURES

Attention for the human body	The collection work should be carried out from windward with protection glasses, gloves, mask.
Attention for the environment	Pay attention not to flow out into the public waters.
Removal method	Scoop up excess material and wash affected area with soap and water. Handling of reposition: refer to "13. Attention of disposal". In case of small amount, wipe off with organic solvent.

### 7. HANDLING AND STORAGE

Handling	Do not touch this product with bare hand. If this product is in contact with skin, wash the hand with alcohol or water with soap. Wear protection glass and mask in operation.
Instructions	Ventilate the room sufficiently in operation. Take care not to inhale the vapor.
Storage	Keep in the cool and dark space.(below 10°C) Condition to avoid      Keep Away from heat source, ignition, strong oxidizers, alkaline and acid.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Protective equipment	local exhaust in operation	
Exposure limit	Unit mg/m <sup>3</sup>	
	OSHA PEL	ACGIH TWA
	2009	2009
Tin	-	2
Silver	0.01	0.1
Copper	0.1	0.2
Rosin	-	-

#### Personal protective equipment

Respiratory apparatus	Protective mask
Hand	Protective gloves
Eye	Protective glass

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Gray paste with metallic luster and glycol odor		
Melting Point(METAL)	217-221 °C	Percent Volatile	0.01mmHg/25°C
Combustibility	Include inflammables	Specific gravity	4.3
Solubility to water	No	Ignition point	141°C(D.B.)
Flash point	No information	(main solvent)	
Flash (spontaneous combustion, reaction with water)	No	Oxidization	No information
		Boiling point	No information

### 10. STABILITY AND REACTIVITY

Stability	This product considered stable under normal condition.
Reactivity	May react with strong acid and oxidizer, alkaline and acids.
Condition to avoid	Keep Away from heat source, ignition, strong oxidizers, alkaline and acid.
Hazardous decomposition products	By combustion carbon oxide, carbon dioxide and hume are generated.

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity	No information
Skin corrosion/irritation	No information
Eye damage/irritation	No information
Respiratory sensitization	No information
Skin sensitization	(Ag) There is an allergic reaction by contact.
Germ cell mutagenicity	No information
Carcinogenicity	No information
Reproductive toxicity	No information
Specific target organ toxicity(single)	(Ag) The obstacle of the respiratory system
Specific target organ toxicity(repeated exposure)	(Sn) fear of the obstacle to the lungs (Ag) Damage of Eyes and respiratory organs with long term or the repetition exposure
Aspiration hazard	No information
Hazardous to the aquatic environment-Acute hazard	No information
Hazardous to the aquatic environment-Chronic hazard	No information

## 12. ECOLOGICAL INFORMATION

Mobility	No information
Biodegradation	No information
Bioaccumulation	No information
Fish Toxicity	No information

## 13. DISPOSAL CONSIDERATIONS

In accordance with state and local regulations  
Metal ingredients are recyclable.

## 14. TRANSPORT INFORMATION

UN No.	Not Applicable
Marine pollutant	Not Applicable
Specific transport measures and condition	To avoid sunshine, high temperature and humidity, keep away from heat. Check before transport load not breakage of container, turnover and fall during transport.

## 15. Regulatory Information

Industrial safety and health law	•Enforcement order Article 18-2 322 Tin and its compounds •Enforcement order Article 18-2 137 Silver and its water soluble compounds •Enforcement order Article 18-2 379 Copper and its compounds •Enforcement order Article 18-2 632 Rosin
PRTR Law	•Class I Designated Chemical Substance Cabinet Order No 82 Silver and its water soluble compounds 2.7%
Other Regulations	•Sewerage Act Enforcement Act Article 9-4 Copper and its compounds

## 16. OTHER INFORMATION

This SDS is created based on the information we can get at issued date. We expect accuracy, but it is not a thing of guarantee. Please perform reasonable attention for individual use and safe handling.

Because the contents of this information correspond to a normal use / condition, in case of not normal use/condition, we will assume that the responsibility is of the user.