

SAFETY DATA SHEET

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name            CLEAN SOLDER SOLDER CREAM PW231-ST355-GQ-CC-1

Company Identification

Name of Supplier      NIHON GENMA MFG. CO., LTD.  
 Address of Supplier   2-16-4, Mitsuyakita, Yodogawa-Ku, Osaka, Japan  
 Department in charge   Technical department  
 Person in charge      Junichi Takenaka  
 Emergency Telephone   06-6302-1251  
 Fax No.                06-6302-1250  
 Mail address            ingm006@k7.dion.ne.jp  
 SDS No.                SDS- E151204  
 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)	Not Classified
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	Not Classified
Pyrophoric liquids	Not Applicable			Skin sensitization	Not Classified
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	Classification Not Possible			Reproductive toxicity	Not Classified
Oxidizing liquids	Not Applicable			Specific target organ toxicity (single exposure)	Not Classified
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**

- H318 Causes serious eye damage
- H372 Cause damage to organs through prolonged or repeated exposure

**Instructions**

- Precaution** Do not breathe dust/fume/gas/mist/vapors/spray. (P260)  
 Wash hands thoroughly after handling. (P264)  
 Do not eat, drink or smoke when using this product. (P270)  
 Wear protective gloves/protective clothing/eye protection/face protection. (P280)
- Response** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
 Immediately call a POISON CENTER or doctor/physician. (P310)  
 Get medical advice/attention if you feel unwell. (P314)
- 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 or General name      Solder paste

**Composition**

Material name	Chemical formula	CAS No	Official file number	Content wt%
Tin	Sn	7440-31-5	-	84.5
Bismuth	Bi	7440-69-9	-	2.7
Silver	Ag	7440-22-4	-	0.89
Copper	Cu	7440-50-8	-	0.44
Modified rosin	-	Trade secret	7-946	3.8
Modified rosin	-	Trade secret	7-937	1.8
Solvent (glycol type)	-	Trade secret	7-97	3.8
Additive	-	Trade secret	-	2.07

**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, air foam, carbon dioxide.
- Specific fire fighting** Fire fighting perform from the windward and remove inflammables.
- 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 repossession: 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.

Instructions Wear protection glass and mask in operation.  
 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 In operation, perform local exhaust  
 Exposure limit Unit mg/m3

	OSHA PEL 2009	ACGIH TWA 2009
Tin	2	2
Bismuth	-	-
Silver	0.01	0.1
Copper	0.1	0.2

**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)	207-223 °C	Percent Volatile (main solvent)	1.33Pa(0.01mmHg)/20°C
Combustibility	Include inflammables	Specific gravity	4.3
Solubility to water	Almost No	Ignition point (main solvent)	126°C
Flash point (main solvent)	305°C		
Flash (spontaneous combustion, reaction with water)	No information	Oxidization	No information
		Boiling point (main solvent)	No informatiojn

**10. STABILITY AND REACTIVITY**

Stability This product considered stable under normal condition.

Reactivity Metal ingredient 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 By combustion copper fume is generated.  
 In case of combustion, carbon oxide, carbon dioxide are released.

#### 11. TOXICOLOGICAL INFORMATION

Acute toxicity	No information
Skin corrosion/irritation	No information
Eye damage/irritation	(Solvent/glycol type) May cause severe eye stimulation with the cornea injury
Respiratory sensitization	No information
Skin sensitization	No information
Germ cell mutagenicity	No information
Carcinogenicity	No information
Reproductive toxicity	No information
Specific target organ toxicity (single exposure)	No information
Specific target organ toxicity (repeated exposure)	(Sn) fear of the obstacle to the lungs
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
PRTR Law	Not Applicable
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.