Date: December 12, 2014

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL PRODUCT NAME	: H9890-6A
NAME OF MANUFACTURER	: NAMICS CORPORATION
NAME OF SECTION	: Upstream Management GROUP
ADDRESS	: 3993, Nigorikawa, Kita-ku, Niigata-City 950-3131, Japan
TELEPHONE	: 81-25-258-5577
FAX	: 81-25-258-5511
DISTRIBUTOR/IMPORTER	: NAMICS TECHNOLOGIES INC.
ADDRESS	: 2055 Gateway Place, Suite 480, San Jose, CA, USA 95110
TELEPHONE	: 1-408-516-4611
FAX	: 1-408-516-4617

2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE	: MIXTURE
PRODUCT FAMILY	: Conductive material
CAS REGISTRY NUMBER	: Not applicable
UN CLASS	: Not applicable
UN NUMBER	: Not applicable

CHEMICAL INGREDIENTS

COMPONENT	CAS No.	%
Silver	7440-22-4	80~90
Resins	trade secret	1~10
Additives	trade secret	<5
High-boiling solvent	trade secret	5~10

3. HAZARD IDENTIFICATION

CLASS NAME OF HAZARDOUS CHEMICALS FOR SDS IN JAPAN
Miscellaneous dangerous substances

PHYSICAL AND CHEMICAL HAZARDS	: Burn easily viscous liquid.
ADVERSE HUMAN HEALTH HAZARDS	: May cause irritation, and repeated exposure may cause allergic reactions and/or sensitization in some individuals. Components contained in this product may be absorbed and cause harmful effects through dermal contact, contact with eyes, inhalation, or ingestion.
ENVIRONMENTAL EFFECTS:	: No relevant information found.

4. FIRST-AID MEASURES

EYE CONTACT

Gently rinse the affected eyes, including under the eyelids, with clean water for at least 15 minutes.
Remove all chemicals from contact with the victim's eyes immediately.
Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

SKIN CONTACT

Remove all contaminated clothing, shoes and socks from the affected areas as quickly as possible, cutting them off if necessary.
Wash the affected areas under tepid running water using a mild soap.
If irritation persists, arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

INHALATION

Remove the victim from the contamination immediately to fresh air.
If breathing is weak, irregular or has stopped, open victim's airway, loosen victim's collar and belt and administer artificial respiration.
Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

INGESTION

Keep the victim warm and quiet.
Do not give an unconscious person anything to drink.
If the victim stops breathing, wipe away any remaining material off the lips and clear the airway and administer artificial respiration.
Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

5. FIRE-FIGHTING MEASURES

SPECIFIC HAZARD WITH REGARD TO FIRE-FIGHTING MEASURES

Firefighters should wear proper protective equipment.
Shut off all sources of ignition; No flares, smoking or flames in area.

EXTINGUISHING MEDIA

Dry chemical powder, foam or carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Shut off all sources of ignition; No flares, smoking or flames in area.
Wear proper protective equipment.
Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.

For large spills, dike for later disposal.

7. HANDLING AND STORAGE

HANDLING

Avoid contact by the uncured product with skin, eyes or mucous membranes.
Avoid inhalation of vapors, mists from curing of the material, or dusts from sanding or cutting of the cured product.
Do not ingest.
Use only in the well-ventilated areas.
Keep container tightly closed.
Prevent build-up of electrostatic charges (e.g., by grounding).
Use reduced-sparking hand-tools.

STORAGE

Store in a freezer.
Avoid long storage periods since the product degrades with age.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

No OSHA PEL or ACGIH TLV has been established for this product. Exposure should be minimized by engineering controls and appropriate personal protective equipment.

ENGINEERING MEASURES

Prevent vapor buildup by providing adequate ventilation during and after use.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION	: Use respiratory protection when workplace hazards warrant the use of a respirator. Appropriate respirators must be used in accordance with a program that follows 29 CFR 1910.134.
EYE PROTECTION	: Chemical goggles or equivalent eye protection if exposure to uncured resin could occur.
HAND, SKIN AND BODY PROTECTION	: Use skin protection, including impervious gloves and clothing that covers arms, legs, face and torso to prevent contact with the uncured resin, dust or mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STAGE

FORM	: Viscous liquid
COLOR	: Grayish silver
ODOR	: Characteristic odor
DENSITY	: 4.2 g/cm3
BOILING POINT	: 245 degrees C
MELTING POINT	: Not available
VAPOR PRESSURE	: Not available
SOLUBILITY IN WATER	: Insoluble
SOLUBILITY IN ORGANIC SOLVENTS	: Soluble

10. PHYSICAL HAZARD (STABILITY AND REACTIVITY)

FLASH POINT	: 131 degrees C (Closed-cup flash point test)
AUTOIGNITION TEMPERATURE	: Higher than 200 degrees C
UPPER EXPLOSION LIMIT	: Not available
LOWER EXPLOSION LIMIT	: Not available
INCOMPATIBILITY	: Oxidizing agents
DECOMPOSITION PRODUCTS	: Toxic fumes of Carbon monoxide, Carbon dioxide, Nitrogen oxides

11. TOXICOLOGICAL INFORMATION

COMPONENT OF THIS PRODUCT

ACUTE TOXICITY

High-boiling solvent : Oral LD50 (rat) 1400 mg/kg

THIS PRODUCT

Product not fully tested. Some of the information is based on a similar product.

Although this product has not been tested as a whole, generally available information indicates that epoxy resins may cause skin irritation and, in some cases, allergic skin reactions. Similarly, information regarding exposure to epoxy resins and the vapors and fumes from epoxy resins, indicates that they may cause irritation of the respiratory tract and the eyes, and allergic respiratory responses in some individuals. Symptoms of adverse effects include:

- Redness, swelling, rash and/or irritation for exposure to skin, eyes, mucous membranes and lungs;
- Coughing or shortness of breath for exposure to respiratory tract; and
- Discomfort or irritation to GI tract if swallowed.

Employees with pre-existing eye, skin, mucous membrane or respiratory disorders, such as a history of skin or respiratory allergies, rashes, or diseases involving impaired respiratory function (e.g., asthma) may be more susceptible to the effects of exposure to epoxy resins. Consult a physician for additional guidance in dealing with these special situations.

12. ECOLOGICAL INFORMATION

No relevant information found.

13. DISPOSAL CONSIDERATIONS

Dispose of all waste related to this product in accordance with applicable regulations.

14. TRANSPORT INFORMATION

Keep away from oxidizing materials and source of ignition.
Follow all regulations in your country.

15. REGULATORY INFORMATION

This product contains the following EPCRA section 313 chemical(s) subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 373):

COMPONENT	CAS No.	wt%
Silver	7440-22-4	80~90

Follow all regulations in your country.

16. OTHER INFORMATION

REFERENCE

1.Guidebook of Safety Data Sheet
Japan Chemical Industry Association Information Center
2.13901 chemical products
The Chemical Daily Co., Ltd.
3.SDS by makers of ingredients

This product is for industrial or commercial applications. This product is not intended for use by the general public.

The information herein is given in good faith, but no warranty, express or implied, is made.
All materials may present unknown hazards and should be used with caution.