

MATERIAL SAFETY DATA

Nippon Steel

SAFETY BULLETIN

1. IDENTIFICATION

PRODUCT NAME : Nippon Steel NS 270A/NS 270B

CHEMICAL NAME : Epoxy Resin - Epichlorohydrin and Bisphenol A
: Epoxy Hardener - Modified Amine

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Hazard
Epichlorohydrin and Bisphenol A	80-05-7	None currently known
Modified Amine	904610-0	Irritant

3. HAZARDS IDENTIFICATION

- May cause sensitization by skin contact – irritating to eyes, respiratory system and skin. Harmful by inhalation, in contact with skin and if swallowed.

4. FIRST AID MEASURES

- Inhalation: Remove to fresh air, keep warm and at rest.
- Skin Contact: Flush with water and use a proprietary skin cleaner immediately. Remove contaminated clothing and shoe.
- Eyes Contact: Immediately flush with water for at least 15 minutes and seek medical advice if necessary.
- Ingestion: If swallowed, DO NOT induce vomiting. Immediately drink a large quantity of milk or water and call a physician.

5. FIRE FIGHTING MEASURES

- Suitable extinguishing media: Use Dry Chemical Powder, Foam, Carbon Dioxide, Water Fog, Sand or Earth.
- Unsuitable extinguishing media: Do not use Water in A Jet.

6. ACCIDENTAL RELEASE MEASURES

- Exclude sources of ignition and ventilate the area.
- Exclude non-essential personnel. Avoid breathing vapours.
- Collect spillages mechanically and store in suitable covered container.

7. HANDLING AND STORAGE

- Handling: Ensure good ventilating during processing. Practice good caution and personal cleanliness to avoid skin and eye contact. Avoid breathing vapors of heated material.
- Protection against fire / explosion: General rules of fire prevention should be observed.
- Storage: Keep container tightly closed and dry. Store in well-ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Industrial Hygiene: Good general ventilation should be sufficient for most conditions.
Remove immediately all contaminated clothing. Do not inhale vapours.
- Hand Protection: Suitable protective gloves.
- Eye Protection: Protective goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

NS 270A

- Colour: Clear or black
- Appearance: liquid to semi-solid.
- Odor: Faint epoxy odor.
- Viscosity (25°C): 11,000 ~ 14,000 cps
- Density (25°C): 1.16 g/ml
- Vapour Pressure: N/A
- Vapour Density: N/A
- Boiling Point: N/A
- Solubility in Water: None
- Specific Gravity: 1.16

NS 270B

- Colour: Light Yellowish
- Physical State: Liquid
- Appearance: Viscous, Water White
- Odor: Ammoniacal
- Viscosity (25°C): 40,000 ~ 60,000 cps
- Density (25°C): 1.19 g/ml
- P/H: N/D
- Boiling Point: N.D.
- Melting Point: N/D
- Specific Gravity: 0.986
- Water Miscibility: Appreciable - > 10%
- Vapor Density: N/D
- Vapor Pressure: N/D MMHG
- VOC Content by WT. (EPA Method 24): N/A %

10. STABILITY AND REACTIVITY

- Chemical stability: Stable at ambient temperature.
- Conditions to avoid: Excess heating above 60°C over long periods of time degrades the resin.
- Incompatibility with other materials: Bases, acids, amines and oxidizing materials.
- Unusual fire or explosion hazard: May produce hazardous fumes or hazardous decomposition products.
- Hazardous decomposition products: None

11. TOXICOLOGICAL INFORMATION

- Skin – may cause sensitization.
- Eyes – Possibly irritating.

12. ECOLOGICAL INFORMATION

- Large quantities of product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface water.

13. DISPOSAL CONSIDERATION

Do not allow large quantities to enter the drains or water courses or dispose of where ground or surface waters may be affected. Residues in emptied containers should be covered and should be disposed of in accordance with regulations made under the control of Pollution & Environmental Protection Area.

14. TRANSPORTATION

UN Haz. Class : 8
UN Number : 1760
Packaging Group : 3

15. REGULATORY INFORMATION

- The product is classified and labeled for supply in accordance with the Classification Of Hazardous Chemical.
- Regulation as follow:
 - Classification – Harmful
 - Irritant to skin
 - R – Phrases 43 May cause sensitization by skin contact
 36/38 Irritant to skin
 - S-Phrases Z Keep out of reach of children
 28 After contact with skin, wash immediately with plenty of water.
 26 In case of contact eyes, rinse immediately with plenty of water and seek medical advice.
 27 Take off immediately all contaminated clothing.

16. OTHER INFORMATION

The information contained in this Safety Data Sheets is based on our present state of knowledge and experience and it provides guidance on health, safety and environmental aspects. We do, however, pass them on without any warranty or properly assurances.