

S A F E T Y D A T A S H E E T (P R O V I S I O N A L V E R S I O N)

1.CHEMICAL PRODUCT & COMPANY IDENTIFICATION

CHEMICAL PRODUCT NAME NEX-130E4X (DDAF)
 NAME OF MANUFACTURER Nippon Steel Chemical Co., Ltd.
 NAME OF SECTION PWB & Package Materials Division
 ADDRESS 14-1, Sotokanda 4-chome, Chiyoda-ku, TOKYO 101-0021, JAPAN
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2.COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE MIXTURE
 GENERIC NAME DIE BONDING SHEET WITH DICING TAPE

1) DIE BONDING SHEET

INGREDIENT	Specific Epoxy Resin (The details are confidential)	Bisphenol A Glycidylether	Fused Silica	Additive
COMPOSITION	5 - 20 %	5 - 20 %	30 - 80 %	5 - 15 %
CHEMICAL FORMULA	-	-	SiO ₂	-
CAS REGISTRY No.	-	25068-38-6	60676-86-0	-
UN CLASS	n/a	n/a	n/a	n/a
UN No.	n/a	n/a	n/a	n/a

2) DICING TAPE

Acrylic adhesive layer, anti-static material and support layer (polyolefin)

3) RELEASE

Polyethylene terephthalate film

3. HAZARDS IDENTIFICATION

1) DIE BONDING SHEET

<Specific epoxy resin>

CLASS NAME OF HAZARDOUS FOR SDS IN JAPAN

Not applicable

PHYSICAL AND CHEMICAL HAZARDS

Reacting easily some oxidants, acids or bases, it can readily polymerize. Burning liberates toxic gas.

ADVERSE HUMAN HEALTH EFFECTS

Toxic by inhalation, or in contact with skin

<Bisphenol A Glycidylether>

CLASS NAME OF HAZARDOUS FOR SDS IN JAPAN

Miscellaneous dangerous substances

PHYSICAL AND CHEMICAL HAZARDS

Reacting easily some oxidants, acids or bases, it can readily polymerize. Burning liberates toxic gas.

ADVERSE HUMAN HEALTH EFFECTS

Inhalation causes congestion in lungs and asthma.
 Contact with the liquid irritates eyes and skin.
 Mutagenicity test showed the data of mutagenicity toxicity over the given criteria(by official notices from Ministry of Labor).

ENVIRONMENTAL EFFECTS

Not available

2) DICING TAPE

CLASS NAME OF HAZARDOUS FOR SDS IN JAPAN

Not applicable

ADVERSE HUMAN HEALTH EFFECTS

Inhalation causes congestion in lungs and asthma.
Contact with the substances irritates eyes and skin.

3) RELEASE

CLASS NAME OF HAZARDOUS FOR SDS IN JAPAN

Not applicable

4. FIRST-AID MEASURES

EYE CONTACT

Gently rinse the affected eyes with clean water for at least 15 minutes. 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 area under tepid running water using a mild soap. If clothing is stuck to the skin after flushing with water, do not remove it. If irritation persists, arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

INHALATION

It has very low possibility to inhale, as this is solid film. If inhale a vapor or gases from high temperature sheet or molten resins, remove the victim from the contamination immediately to fresh air. In case of respiratory pause, loosen his collar and belt and arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

INGESTION

Rinse mouth with water. Try to get the victim to vomit by having the victim touch the back of their throat with a finger. Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

5. FIRE-FIGHTING MEASURES

SPECIFIC HAZARDS WITH REGARD TO FIRE-EXTINGUISHING MEASURES

Shut off the supply. Use extinguishing equipment in the wind-ward side, if necessary wear protective clothing including a breathing apparatus.

If the fire extends to the surrounding, cool the facilities by spraying with water. And immediately move containers to safe place if possible.

EXTINGUISHING MEDIA

In case of fire, use water spray, foam, dry chemical powder or carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

It has very low possibility of release or spillage, as this is solid film.

If release or spill a vapor or gases from high temperature molten resins, displace surrounding flammable substances, ventilate, and give information to proper positions to ask help.

Wear protective clothing, dust respirator, goggles and gloves to protect the human body.

Sweep up, place in a bag and hold for waste disposal to protect the environment.

Dispose in accordance with all applicable federal, state or local environmental regulations.

7. HANDLING AND STORAGE

HANDLING

Interdict sources of fire, such as flare, static electricity, a spark by impact, in the working place and the surrounding. Do not tumble, fall, bang or shake the containers. Accumulate the used containers in a

given place.

STORAGE

Avoid high temperature. Keep a package with tightness and a dry bag. Avoid direct rays from the sun.
No fire.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

CONTROL PARAMETERS

1) DIE BONDING SHEET

<Fused Silica>

ACGIH TLV (2000) TWA 0.1mg/m³

OSHA PEL (1989) Not established

Regulating Standards for working environment measurement and assessment by Ordinance on Prevention of Hazards due to Dust / the Industrial Safety and Health Law.

Standard of Assessment; 2.9 mg/m³

Occupational Exposure Limits:

-Japan Society for Occupational Health; Dust Class 2

Aspiratory Dust; 1 mg/m³

Total Dust; 4 mg/m³

2) DICING TAPE Not established

3) RELEASE Not established

ENGINEERING MEASURES

Prefer to handle this material in a totally enclosed system with local exhaust ventilation.

Make available hand wash and eye wash in the working area, and show the direction of the place.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION Dust respirator

EYE PROTECTION Safety goggles

HAND PROTECTION Gloves

SKIN AND BODY PROTECTION Full-body suit, boots, apron

PREVENTION MEASURES ON HYGIENE

1. Wash hands and eyes after handling.
2. Provide educational programs of safety hygiene.

9. PHYSICAL AND CHEMICAL PROPERTIES

1) DIE BONDING SHEET

APPEARLANCE, PHYSICAL STATE, FORM, COLOUR, ODOUR

Pale yellow solid with no smell

SPECIFIC GRAVITY 1.2-2.0

VISCOSITY 100-1,000Pa*sec (90 degree C by Flow Tester)

SOLUBILITY IN WATER None

IN OTHERS Soluble in ketones

2) DICING TAPE

APPEARLANCE, PHYSICAL STATE, FORM, COLOUR, ODOUR

Thin plastic sheet with no smell

SPECIFIC GRAVITY Not available

VISCOSITY Not applicable

SOLUBILITY IN WATER None

IN OTHERS Not available

3) RELEASE

APPEARLANCE, PHYSICAL STATE, FORM, COLOUR, ODOUR

Thin plastic sheet with no smell

SPECIFIC GRAVITY

Not available

VISCOSITY

Not applicable

SOLUBILITY IN WATER

None

IN OTHERS

Not available

10. PHYSICAL HAZARD(STABILITY AND REACTIVITY)

1) DIE BONDING SHEET

FLAMMABILITY

Yes

SPONTANEOUS COMBUSTIIBILITY

None

OXIDIZIBILITY

None

INCOMPATIBILITY

Strong bases, strong acids or strong oxidizers

2) DICING TAPE

FLAMMABILITY

Yes

SPONTANEOUS COMBUSTIIBILITY

None

OXIDIZIBILITY

None

INCOMPATIBILITY

Strong bases, strong acids or strong oxidizers

3) RELEASE

FLAMMABILITY

Yes

SPONTANEOUS COMBUSTIIBILITY

None

OXIDIZIBILITY

None

INCOMPATIBILITY

Strong bases, strong acids or strong oxidizers

11. TOXICOLOGICAL INFORMATION

1) DIE BONDING SHEET

<Bisphenol A Glycidylether>

ACUTE TOXICITY Oral LD₅₀ (rat) Not available

CORROSIVE AND IRRITANT PROPERTIES

Skin; May irritate skin.

Others; May irritate eyes and skin by contact of the liquid materials.

MUTAGENIC EFFECTS

Mutagenicity is reported in Ames test and in Chromosomal aberration test.

ALLERGENIC AND SENSITIZING EFFECTS

May cause sensitization.

2) DICING TAPE

Not available

3) RELEASE

Not available

12. ECOLOGICAL INFORMATION

1) DIE BONDING SHEET

BIODEGRADABILITY Not available

BIOACCUMULATION Not available

FISH TOXICITY Not available

2) DICING TAPE

BIODEGRADABILITY	Not available
BIOACCUMULATION	Not available
FISH TOXICITY	Not available

3) RELEASE

BIODEGRADABILITY	Not available
BIOACCUMULATION	Not available
FISH TOXICITY	Not available

13. DISPOSAL CONSIDERATION

This substance may be burned in a chemical incinerator equipped with an afterburner and scrubber. Follow all regulations in your country.

14. TRANSPORT INFORMATION

Keep a package with tightness. Avoid direct rays from the sun. Avoid the high temperature. No fire. Follow all regulations in your country.

15. REGULATORY INFORMATION

HARMFUL CHEMICAL MATERIALS ACTS TSCA Inventory; listed.

REGULATIONS BY OTHER ACTS

The Nippon Steel Chemical Co Ltd is not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

16. OTHER INFORMATION

REFERENCES

This MSDS is mainly described following the data by Nippon Steel Chemical Co Ltd., by JICST Network and by CSCL Japan.

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. Please consult Nippon Steel Chemical Co Ltd for further information.
