

MATERIAL SAFETY DATA SHEET

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PRODUCT NAME: DIABOND DN174

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

PRODUCT NAME: DIABOND DN174

GENERAL USE: Adhesive.

PRODUCT DESCRIPTION: NITRILE BUTADIENE RUBBER BASED ADHESIVE

COMPANY IDENTIFICATION

MANUFACTURER'S NAME: NOGAWA CHEMICAL CO.,LTD.

ADDRESS: 4-15-11,Honcho,Nihonbashi,Chuo-ku,Tokyo 103 Japan

EMERGENCY TELEPHONE NUMBER:

WEEKDAYS : 03-3662-8991 (JAPAN)

NIGHT/WEEKENDS : 048-265-1967 (JAPAN)

TELEPHONE NUMBER FOR INFORMATION : 048-265-1967 (JAPAN)

DATA PREPARED: 2005/9/2

LAST REVISION: 2010/4/28

DATA ISSUED : 2010/4/28

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

SINGLE OR MIXTURE: Mixture

HAZARDOUS COMPONENTS	CAS	CONTENTS (Weight %)	EXPOSURE LIMITS	
			OSHA PEL	ACGIH TLV
Nitrile Butadiene Rubber etc.	9003-18-3	31 ± 1.5	N/E	N/E
Methyl ethyl ketone	78-93-3	40 ~ 49	200ppm	300ppm
Acetone	67-64-1	5 ~ 15	1000ppm	750ppm
Toluene	108-88-3	5 ~ 15	200ppm	*

* N/E means : Not established

* means : No data

SECTION 3 HAZARDS IDENTIFICATION

HAZARDS CLASSIFICATION: Flammable liquid.

FIRE AND EXPLOSION: Highly flammable and explosive hazard.

POTENTIAL HEALTH EFFECT:

INGESTION : Harmful if swallowed. Large exposure may be fatal.

INHALATION : Gas or vapor may be harmful if inhaled. High concentrations may be fatal.
Vapors may cause headaches, nausea, and vomiting.

EYE CONTACT : May cause irritation and possible corneal damage.

SKIN CONTACT: Moderately irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin dermatitis.

SECTION 4 FIRST AID MEASURES

INGESTION : If swallowed give the victim 2 glasses of water and get medical attention.
Never give an unconscious person anything to drink.

INHALATION : Remove victim to fresh air and provide oxygen if breathing is difficult.
Give artificial respiration if not breathing. Get medical attention.

EYE CONTACT : Wash eyes immediately with large amounts water, lifting the upper and lower eyelids occasionally. Get medical attention.

SKIN CONTACT: Wash with soap and water or a skin cleanser. If clothing or shoes are contaminated remove and do not use until cleaned. If persistent irritation occurs, get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT (METHOD USED) : -17 (T.C.C)
AUTO-IGNITION TEMPERATURE : 480
FLAMMABILITY : Flammable Liquid
FLAMMABLE LIMITS : Lower : 1 % Upper : 13 %
EXTINGUISHING MEDIA : Foam, dry chemical or carbon dioxide.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:

Self-contained breathing apparatus must be worn.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Cool drums with water spray to prevent pressure explosion. Vapors may ignite explosively.

SECTION 6 ACCIDENTAL RELEASE MEASURES

STEP TO BE TAKEN IN CASE MATERIAL RELEASED OR SPILLED:

Remove and eliminate all sources of ignition, use explosion-proof equipment. Ventilate area of spill or leak. For small quantities absorb on paper towels. Large quantities should be retained by diking and absorbed with absorbent material. Wear a self-contained breathing apparatus and appropriate Personal protection. (See Exposure Controls, Personal Protection section.)

SECTION 7 HANDLING AND STORAGE

HANDLING PROCEDURES: Use with adequate ventilation. Avoid breathing vapor or gas. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use spark-proof tools and explosion-proof equipment. Keep out of reach of children. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks ,flame, static electricisity or other sources ignition.

STORAGE REQUIREMENT: Keep away from heat, sparks ,flame, static electricisity or other sources ignition. Store in a cool place within 5~35 . Store with adequate ventilation. Keep container closed when not in use.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

ENGINEERING CONTOROLS:

VENTILATION; Local exhaust; Required. Generally required to reduce exposure to below OSHA allowable levels.

OTHER; Use explosion proof moter and fixtures only.

PERSONAL PROTECTION EQUIPMENT:

RESPIRATORY PROTECTION; Use either a self-contained air supplied respirator or organic vapor respirator.

PROTECTIVE GLOVES; Rubber gloves, Polyethylene gloves.

EYE PROTECTION; Chemical safety goggles, glasses or face shield.

OTHER PROTECTIVE EQUIPMENT; Impervious clothing should be worn to prevent repeated or prolonged skin contact with the product in a liquid state. Eyewash equipment.

EXPOSURE LIMITS:

Methyl ethyl ketone	ACGIH TLV-TWA:	200ppm	OSHA PEL:	200ppm
Acetone	ACGIH TLV-TWA:	500ppm	OSHA PEL:	1000ppm
Toluene	ACGIH TLV-TWA:	20ppm	OSHA PEL:	200ppm

* means : No data

* N/E means : Not established

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Yellowish brown and Methyl ethyl ketone oder.
 BOILING POINT: 56
 MELTING POINT: < 0
 SPECIFIC GRAVITY (H2O=1): about 0.90
 VAPOR PRESSURE (mmHg.): 185 mmHg (Acetone)
 VAPOR DENSITY (AIR=1): 2~4
 PERCENT VOLATILE BY VOLUME (%): 31±1.5 (weight %)
 SOLUBILITY IN WATER: Insoluble
 SOLUBILITY IN ORGANIC SOLVENTS: Methyl ethyl ketone ; Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable.
 MATERIALS TO AVOID (INCOMPATIBILITY): Strong oxidizers and acids.
 HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Carbon dioxide, Nitrogen monoxide, Nitrogen dixide when burned.
 HAZARDOUS POLYMERIZATION: Will not occur.
 CONDITIONS TO AVOID: None.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE:
 INGESTION: LD50(Rat); 636 mg/kg (Toluene)
 INHALATION: LC50(Rat); 49g/m3/4H (Toluene)
 EYE CONTACT: This product may cause irritation and possible corneal damage.
 SKIN CONTACT: LD50(Rabbit); 14100 µl/kg (Toluene)
 CHRONIC: May cause nervous system disturbances. Toluene etc.
 CARCINOGENICITY:
 IARC: 3
 NTP : Not listed
 OSHA REGULATION: Not listed

SECTION 12 ECOLOGICAL INFORMATION

BIODEGRADATION: No information is available.
 BIOACCUMULATION: No information is available.
 AQUATIC TOXICITY: No information is available.
 OTHER INFORMATION: None

SECTION 13 DISPOSAL CONSIDERATIONS

SAFETY HANDLING: Use with adequate ventilation. Avoid breathing vapor or gas. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use spark-proof tools and explosion-proof equipment. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks ,flame, static electriscity or other sources ignition.

WASTE DISPOSAL METHODS: Contaminated absorbent material or waste product must be disposed of in accordance with regulations in the Resource Conservation and Recovery Act and/ or State, local or EPA regulations.

SECTION 1 4 TRANSPORT INFORMATION

INTERNATIONAL TRANSPORT INFORMATION:

PROPER SHIPPING NAME: Adhesive
UN NUMBER: 1133
HAZARDS CLASS: Flammable Liquid / 3
PACKING GROUP: 2
HAZARD SUBSTANCES NAME: See section 2.
OTHER: Control temperature: 5 ~ 35

SECTION 1 5 REGULATORY INFORMATION

TOXIC SUBSTANCE CONTROL ACT (TSCA): All ingredients are listed.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE SECTION 313 SUPPLIER NOTIFICATION:

This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the emergency planning and community Right-To-Know Act of 1986 and 40 CFR 372. This information must be included in all MSDS's that are copied and distributed for the material.

The toxic chemical(s) contained in this product are:

CHEMICAL NAME	CAS	CONTENTS (Weight %)
Methyl ethyl ketone	78-93-3	40 ~ 49
Acetone	67-64-1	5 ~ 15
Toluene	108-88-3	5 ~ 15

SECTION 1 6 OTHER INFORMATION

For industrial use only.

This MSDS has been revised in accordance with Material Safety Data Sheets Preparation (American National Standard Z 400.1-1993)

Abbreviations

1. The column "OSHA" reveals PEL (Permissible Exposure Limit) under Occupational Safety and Health Administration.
2. The column "ACGIH" reveals TLV (Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
3. The term "IARC" stands for International Agency for Research on Cancer.
4. The term "NTP" stands for National Toxicology Program.

This MSDS complies with Hazard Communication Standard under Occupational Safety and Health Act of 1970 . This information relates only to specific material designated and may not be valid for such material used in combination with any other material or in any other process. It is based on the level of our knowledge as of the date of preparation.