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DAIWA FINE CHEMICALS

SAFETY DATA SHEET

Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Diana ND

General Use: Volatile corrosion inhibitor

SDS Number: 24B-EN-5

MANUFACTURER

Company Name: DAIWA FINE CHEMICALS CO., LTD.

Section: Quality Assurance Department

Address: 21-8, Minamifutami, Futami-cho, Akashi-city, 674-0093, Japan

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Section 2 – HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable solids: Category 2

Acute Toxicity (Oral): Category 3

Specific Target Organ Toxicity, Single Exposure: Category 1 (hematopoietic system)

GHS LABEL ELEMENTS

Hazard Symbol







Signal Word

Danger

Hazard Statements

Flammable solid

Toxic if swallowed

Causes damage to hematopoietic system

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Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surface. -No smoking.

Ground/Bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Wear protective gloves/eye protection/face protection.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Do not breathe dust/fume/vapours/spray.

Response

In case of fire: Use appropriate fire extinguishing agents for extinction.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Rinse mouth.

IF EXPOSED: Call a POISON CENTER or doctor/physician

Storage

Store locked up.

Disposal

Comply with all national and local regulations.

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Typical Wt. %	CAS Registry Number
Dicyclohexylammonium nitrite(DICHAN)	97~98	3129-91-7
Sodium organic carboxylate	2~3	Secret

Section 4 – FIRST-AID MEASURES

SWALLOWED

Immediately call a POISON CENTER or doctor/physician.

Rinse mouth.

EXPOSED

Call a POISON CENTER or doctor/physician.

INHALED

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

SKIN

Wash with plenty soap and water.

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If skin irritation occurs, get medical advice/attention.

Take off contaminated clothing and wash before reuse.

EYE

If in eyes, rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do.

Continue rinsing.

Section 5 – FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use Water spray, Carbon dioxide, Alcohol foam or Dry chemical.

Do not use straight streams of water.

FIRE HAZARD

May emit poisonous or corrosive fumes.

FIRE FIGHTING

Keep personnel removed from an upwind of fire. Apply extinguishing media from safe distance and protect surrounding area. Fire fighters should wear proper protective equipment.

Section 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition. Pick up this product, then place in covered chemical waste container for disposal.

ENVIRONMENT PRECAUTIONS

Do not wash away into sewers or waterway.

Section 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Keep away from heat/sparks/open flames/hot surfaces. -No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Wear protective gloves/eye protection/face protection.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Do not breathe dust.

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CONDITIONS FOR SAFE STORAGE

Store locked up.

Store in a cool, dry and well-ventilated place.

Keep away from heat, steam pipe or sunlight.

Do not storage in a same place with strong acids, strong oxidizer and strong beses.

Keep containers securely sealed when not it use.

Avoid physical damage to containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Not established.

ENGINEERING CONTROLS

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

PERSONAL PROTECTIVE EQUIPMENT

Eye Protection: Wear safety glasses.

Hand and Skin Protection: Wear impervious clothing such as gloves, apron or boots.

Respiratory Protection: Wear safety masks.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White powder

ODOR: Slight amine-like odor

ODOR THRESHOLD: Not available.

pH: $6.5 \sim 8.5$ (1% aq. solution)

MELTING POINT / FREEZING POINT: 176°C (DICHAN)

INITIAL BOILING POINT AND BOILING RANGE: Not available.

FLASH POINT: 146°C (DICHAN)

EVAPORATION RATE: Not available.

UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: Not available.

VAPOR PRESSURE: $0.013 \text{ Pa} (= 0.0001 \text{ mmHg}) (21.1^{\circ}\text{C}) (DICHAN)$

VAPOR DENSITY: Not available.

RELATIVE DENSITY: Not available.

SOLUBILITY: 3.9 g/100 mL (25°C) in water, 23.6 g/100 ml in methanol, 2.2 g/100 ml in isopropyl

alcohol

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OCTANOL/WATER PARTITION COEFFICIENT: Not available.

AUTO-IGNITION TEMPERATURE: Not available. DECOMPOSITON TEMPERATURE: Not available.

VISCOSITY: Not available.

COD: 540ppm (1% aq. solution) (DICHAN)

HEAT OF COMBUSTION: 7810cal/g (DICHAN)

Section 10 – STABILITY AND REACTIVITY

CHEMICAL STABILITY

Stable at room temperature in closed containers under normal storage and handling conditions.

May change in quality or color by direct sunlight.

POSSIBILITY OF HAZARDOUS REACTIONS

Dust explosion possible if in powder or granular form mixed with air.

May produce oxides of nitrogen by contact with strong oxidizer.

May produce amines by contact with strong bases.

CONDITIONS TO AVOID

Ignition sources, dust generation, excess heat, direct sunlight, contact with incompatible materials.

INCOMPATIBLE MATERIALS

Strong oxidizer, strong acids, strong bases.

Section 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Oral, rat: $LD_{50} = 330 \text{ mg/kg}$ (estimated)

SKIN CORROSION / IRRITATION

None

SERIOUS EYE DAMAGE / IRRITATION

Not available.

RESPIRATORY OR SKIN SENSITIZATION

Not available.

GERM CELL MUTAGENICITY

Not available.

CARCINOGENICITY

Not available.

REPRODUCTIVE TOXICITY

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Not available.

STOT - SINGLE EXPOSURE

Not available.

STOT - REPEATED EXPOSURE

Not available.

ASPIRATION HAZARD

Not available.

Section 12 – ECOLOGICAL INFORMATION

TOXICITY

Not available.

PERSISTENCE AND DEGRADABILITY

Not available.

BIOACCUMULATIVE POTENTIAL

Not available.

MOBILITY IN SOIL

Not available.

Section 13 – DISPOSAL CONSIDERATION

Dissolve or mix this product with combustible solvent and burn in a chemical incinerator with an afterburner and scrubber.

Do not dump this product into sewers, on the ground or into any body of water.

Comply with all national and local regulations.

Section 14 – TRANSPORT INFORMATION

SHIPPING NAME

Flammable solid, organic, N.O.S.

HAZARD CLASS

4.1

UN NUMBER

1325

PACKING GROUPE

III

Do not mixed load with strong acids, strong oxidizer and strong beses.

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Protect against physical damage.

Comply with all national and local regulations.

Section 15 – REGULATORY INFORMATION

Comply with all national and local regulations.

Section 16 – OTHER INFORMATION

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