

# INTEK ND-75

## Material Safety Data Sheet

### Section 1 - IDENTIFICATION

|                             |  |
|-----------------------------|--|
| Manufacturer's Name         | INTEK Technology   |
| Manufacturer's Address      | 3945 University Drive<br>Fairfax, VA 22030   |
| Manufacturer's Phone Number | 1-866-273-1177   |
| Emergency Phone Number      | CHEMTREC - (800) 424-9300  |
| Product Information         | Call INTEK Marine Technology at 1-866-273-1177   |
| Effective Date              | 7/29/02  |
| Chemical Name               | ND-75  |
| DOT Shipping Description    | Non-hazardous and non-regulated  |
| Chemical Family             | Diamines, Hydrazide  |
| Chemical Comment            | This product does not contain any toxic chemicals reportable under Section 313 of Title III of SARA. |
| Chemical Formula            | $C_{10}N_{10}O_4H_{24}$  |

---

### Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

| <u>Components</u>                    | <u>% by Wt</u> | <u>CAS #</u> | <u>Exposure Limits</u> |
|--------------------------------------|----------------|--------------|------------------------|
| Ethylenediaminetetraacetyl Hydrazide | 5.8            | 19376-46-6   | Not established        |

---

### Section 3 - PHYSICAL AND CHEMICAL PROPERTIES

|   |             |
|---|-------------|
| Boiling Point (°C)                      | 106         |
| Volatility/Vol. (%)                     | <90         |
| Melting/Freezing Point (°C)             | <-1         |
| Solubility in H <sub>2</sub> O (%)      | 100         |
| Physical Form                           | Liquid      |
| Odor                                    | Musty       |
| Color                                   | Purple      |
| Specific Gravity (25 °C)                | 1.05 ± 0.05 |
| Evaporation Rate (H <sub>2</sub> O = 1) | <1          |
| pH                                      | 7.0 ± 0.1   |

---

### Section 4 - FIRE FIGHTING METHODS

|                                  |   |
|----------------------------------|---|
| Flash Point (°C)                 | Non-flammable                                       |
| Lower Flame Limit                | Not applicable                                      |
| Higher Flame Limit               | Not applicable                                      |
| Extinguish Media                 | Use extinguishing media for primary source of fire. |
| Special Fire Fighting Procedures | None  |
| Unusual Fire & Explosion Hazard  | None  |

**Section 5 - HAZARDS IDENTIFICATION**

**POTENTIAL HEALTH EFFECTS**

ROUTES OF ENTRY

Inhalation: Eye Contact; Skin Contact; Skin Absorption; Ingestion. EPA's review of a related product has determined that chemical substances which may result from human ingestion and metabolism of a ND-75 component, and impurities that may be present in ND-75, have been found to cause cancer in laboratory animals.

AGGRAVATED BY EXPOSURE

Persons with preexisting eye, skin or respiratory tract, or impaired liver and/or kidney function conditions may be more susceptible to the effects of this chemical.

EXPOSURE LIMITS

Not established for this proeduct.

**CARCINOGENICITY**

NTP

Not listed

IARC

Not listed

OSHA

Not listed

INTEK ND-75 contains no carcinogenic constituents. However, the EPA's review of a related product has determined that when improperly disposed, chemical substances which may result from the metabolism of potential trace impurities in that product may cause cancer in laboratory animals.

Though no tests have indicated the presence of the aforementioned "trace impurities" in INTEK ND-75, the manufacturer, in consultation with the EPA, has determined that the only approved methods for disposal of INTEK ND-75 are as follows:

1. Incineration
2. Deep well injection in an EPA designated Class I Well
3. Destruction via chemical oxidation that is conducted and verified in accordance with the manufacturers procedures.

---

**SECTION 6-FIRST AID MEASURES**

EYE CONTACT

Flush the eyes with large amounts of running water at room temperature for at least 15 minutes and see a physician, preferably an ophthalmologist, immediately.

SKIN CONTACT

Wash immediately with cool, running water while removing contaminated clothing and shoes. Avoid using hot water and hard rubbing. Consult a physician, particularly if exposure is extensive, prolonged, or irritation persists after washing. Wash contaminated clothing thoroughly before reuse.

INHALATION

Persons actually overexposed to ND-75 vapors should be removed from the contaminated environment as quickly as possible by properly protected rescue personnel. Trained persons can administer oxygen to ease breathing. Consult a physician immediately.

INGESTION

Accidental ingestion of ND-75 solutions should be treated by taking large amounts of water. Never give anything by mouth to an unconscious person. Inducing vomiting is indicated in conscious patients, especially when there has been ingestion within the last thirty (30) minutes. A physician should be contacted immediately.

NOTE TO PHYSICIANS

There are no definitive antidotes for ND-75 exposure. Physicians should treat exposed persons symptomatically. Overexposed persons should be closely observed for symptoms of central nervous system involvement, respiratory irritation, bronchitis or edema, and treat accordingly.

**SECTION 7-STABILITY AND REACTIVITY**

|                           |   |
|---------------------------|---|
| CHEMICAL STABILITY        | Stable at normal temperatures and pressures.  |
| INSTABILITY CONDITIONS    | Excessive temperatures (Also, see INCOMPATIBILITIES).   |
| INCOMPATIBLE MATERIALS    | Brisk reactions with strong oxidizers.  |
| DECOMPOSITION TEMPERATURE | Refer to DECOMPOSITION PRODUCTS.  |
| DECOMPOSITION PRODUCTS    | Slow oxidation with H <sub>2</sub> O <sub>2</sub> at ambient temperature will result in nitrogen, carbon dioxide and water. Thermal decomposition may result in hydrogen evolution. |
| HAZARDOUS POLYMERIZATION  | Will not occur  |

---

**SECTION 8-TOXICOLOGICAL INFORMATION**

**ANIMAL TOXICITY DATA**

|                         |   |
|-------------------------|---|
| ACUTE TOXICITY          | For tetrahydrazide of EDTA  |
| ORAL LD 50 (RATS)       | 0.93 g/kg   |
| DERMAL LD 50 (RABBITS)  | Not determined  |
| INHALATION LC 50 (RATS) | Not determined  |
| EYE EFFECTS             | Corrosive   |
| SKIN EFFECTS            | Corrosive   |
| CHRONIC TOXICITY        | The United States Environmental Protection Agency considers hydrazide containing compounds as potential carcinogens, and can have chronic effects to the liver, kidneys, and blood. |
| AQUATIC TOXICITY        | The EPA SNUR requires that ND-75 cannot come into contact with U.S. waters without prior chemical destruction.  |

**FOR INFORMATION ONLY**

ACUTE TOXICITY data on ADIPIC DIHYDRAZIDE, a material with a very similar chemical structure to ethylenediaminetetraacetyl hydrazide.

|                         |                |
|-------------------------|----------------|
| ORAL LD 50 (RATS)       | >5 g/kg        |
| DERMAL LD 50 (RABBITS)  | >2 g/kg        |
| INHALATION LC 50 (RATS) | Not determined |

ACUTE TOXICITY data on HYDRAZINE HYDRATE (35% AQUEOUS SOLUTION), a starting material in the synthesis of ethylenediaminetetraacetyl hydrazide which may be present in small amounts (<5%) in the final product.

|                                |            |
|--------------------------------|------------|
| ORAL LD 50 (RATS)              | 129 mg/kg  |
| DERMAL LD 50 (RABBITS)         | >200 mg/kg |
| INHALATION LC 50 (4-HOUR RATS) | 6.5 mg/kg  |

---

**SECTION 9-ECOLOGICAL INFORMATION**

The United States Environmental Protection Agency requires that ND-75 not come into contact with U.S. waters without prior chemical destruction.

---

**SECTION 10-DISPOSAL CONSIDERATIONS**

Ethylenediaminetetraacetyl hydrazide is subject to EPA Significant New Use Rule on PMN # 85-619. (40CFR, part 271.2089).

**SECTION 11-ACCIDENTAL RELEASE MEASURES**

**SPILL OR LEAK PROCEDURES**

Use appropriate protective equipment. Contain small spills by diking and digging a containment pit sufficiently large to hold at least 5 times the spill volume. Dilute to approximately 2 times the volume with water. Add sufficient dry commercial calcium hypochlorite (dry chlorine, HTHR, dry bleach) to completely oxidize the ND-75. Use 2 lbs. per pound of ND-75. Calcium hypochlorite or other oxidizing agents react very vigorously, releasing large amounts of heat and gas. Contaminated surfaces should be treated with household bleach or calcium hypochlorite solution to oxidize the residual ND-75. In the event of larger spills, contain product, secure area and notifyINTEK Technology at 866-273-1177.

---

**SECTION 12-HANDLING AND STORAGE**

**HANDLING**

When handling ND-75, utilize protective clothing and equipment. Do not get in eyes or on skin. Do not breath vapors or mist. Wash thoroughly after handling. Protect product from freezing.

**STORAGE**

Store in a dry place away from heat (below 50°C [122°F]) and away from oxidizing materials. Shelter drums stored outdoors from direct sunlight. For indoor storage areas, continuous ventilation should be provided .This product may become electrostatically charged during filling and transferring. Make sure equipment is properly bonded and grounded. Store away from food and beverages. Do not store in zinc containers as gas evolution will occur. If material freezes, thaw by warming, then stir before using. Store at ambient temperature (below 50°C [122°F]). Unlimited shelf-life in tightly closed containers. Sensitive to extreme heat, oxidizing materials or catalytic metals. Protect product from freezing.

---

**SECTION 13-EXPOSURE CONTROLS, PERSONAL PROTECTION**

**VENTILATION**

Use local exhaust.

**SKIN PROTECTION**

Rubber splash suits or aprons, boots and gloves should be wornwhen spray or splash protection is required.

**EYE PROTECTION**

Splash goggles or full face shield.

**ADDITIONAL PROTECTION**

Safety showers and eyewash stations should be readily available. Do not store or transfer solutions in zinc or magnesium containers as evolution of gas occurs. Personal protective equipment is not an adequate substitute for safe work practices, proper equipment design, and good maintenance practices

---

**SECTION 14-TRANSPORT INFORMATION**

**D.O.T. SHIPPING NAME**

None

**D.O.T. HAZARD CLASS**

Non-hazardous and non-regulated

**U.N. I.D. NUMBER**

Not Applicable

**PRODUCT LABEL**

ND-75

**PACKAGING**

This chemical is supplied in a UN certified 1H1 high density polyethylene 55-gallon drum. This packaging meets all regulations governing transportation via ground, air, and sea. Smaller quantities will be supplied in HDPE containers.

**SPECIAL HANDLING**

Protect product from freezing.

**SECTION 15-REGULATORY INFORMATION**

TSCA STATUS Not on TSCA Inventory, SNUR applies.  
 SARA TITLE III  
     SECTION 302 Extremely Hazardous Substances None  
     SECTION 313 TOXIC CHEMICALS None  
 RCRA STATUS This product is not regulated as hazardous waste under RCRA. Under RCRA it is the responsibility of the of the product user to determine at the time of disposal, whether a material containing the product or derived rom the product should be classified as hazardous waste. Ethylenediaminetetraacetyl hydrazide subject to EPA Significant New Use Rule on PMN # 85-619

**SECTION 16-OTHER INFORMATION**

**HMIS HAZARD RATING:**

Health 1  
 Flammability 0  
 Reactivity 0  
 PPE C

**NFPA HAZARD RATING:**

Health 1  
 Flammability 0  
 Reactivity 0  
 Specific Hazard 0

|              |                      |                           |                    |                        |
|--------------|----------------------|---------------------------|--------------------|------------------------|
| 0 = Least    | <u>Health</u>        | <u>Fire (flash point)</u> | <u>Reactivity</u>  | <u>Specific Hazard</u> |
| 1 = Low      | 0 Normal Material    | Will not burn             | Stable             | No water <del>W</del>  |
| 2 = Moderate | 1 Slightly Hazardous | >200°F                    | Unstable if heated | Radiation RAD          |
| 3 = High     | 2 Hazardous<200°F    | Violent Chemical          | Corrosive          | COR                    |
| 4 = Extreme  | Extreme Hazard<100°F | Shock & Heat              | Acid               | ACID                   |
|              | 4 Deadly             | <75°F                     | May detonate       | Oxidizer OXY           |

PPE: A = Glasses  
 B = Glasses, Gloves  
 C = Glasses, Gloves, Apron Clothing

**NOTE:**

All information appearing herein is based upon data obtained from manufacturers and or recognized technical sources. We believe the information is current and accurate as of the date of this MSDS. It is given in good faith, but, not warranty expressed or implied is made. Since the use of this information and the conditions of the use of the product are not under the control of Intek Technology it is the user's responsibility to determine conditions of safe use of the product. Please consult Intek Technology for further information.