

Common Name: **N-NITROSODIETHYLAMINE**

Synonyms: NDEA; Diethylnitrosoamine

CAS No: 55-18-5

 Molecular Formula: C<sub>4</sub>H<sub>10</sub>N<sub>2</sub>O

RTK Substance No: 1404

 Description: Pale yellow liquid with an *Amine* or *Aromatic* odor

**HAZARD DATA**

Hazard Rating	Firefighting	Reactivity
<b>3 - Health</b> <b>2 - Fire</b> <b>1 - Reactivity</b> DOT#: UN 3082 ERG Guide #: 171 Hazard Class: 9 (Environmentally hazardous)	COMBUSTIBLE LIQUID Use dry chemical, CO <sub>2</sub> , water spray or foam as extinguishing agents. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Nitrogen Oxides</i> . CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool.	<b>N-Nitrosodiethylamine</b> is not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); REDUCING AGENTS (such as LITHIUM, SODIUM, ALUMINUM and their HYDRIDES); ORGANIC ANHYDRIDES; ACRYLATES; ALCOHOLS; ALDEHYDES; CRESOLS; ISOCYANATES; KETONES; GLYCOLS; PHENOLS; and VINYL ACETATE.

**SPILL/LEAKS**
**Isolation Distance:**

Small Spill: 60 meters (200 feet)

Large Spill: 270 meters (900 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in vermiculite, dry sand, earth, or a similar material and deposit in sealed containers.

DO NOT wash into sewer.

Bioaccumulation is low in aquatic organisms.

**PHYSICAL PROPERTIES**
**Odor Threshold:** *Amine* or *Aromatic* odor

**Flash Point:** 145.4°F (63°C)

**Vapor Pressure:** 0.86 mm Hg at 68°F (20°C)

**Specific Gravity:** 0.94 (water = 1)

**Water Solubility:** Soluble

**Boiling Point:** 351°F (177°C)

**Molecular Weight:** 102.2

**EXPOSURE LIMITS**

 No occupational exposure limits have been established for **N-Nitrosodiethylamine**.

**PROTECTIVE EQUIPMENT**
**Gloves:** Butyl and Silver Shield®/4H® (>8-hr breakthrough)

**Coveralls:** DuPont Tychem® Responder®, CPF 3, F, CPF 4, BR, LV and TK; Kappler® Zytron® 300; and Saint-Gobain ONESuit® TEC (>8-hr breakthrough for *Diethyl Amine*)

**Respirator:** Supplied air

**HEALTH EFFECTS**
**Eyes:** Irritation

**Skin:** Irritation

**Inhalation:** Nose and throat irritation

**Chronic:** Cancer (liver, lung, gastrointestinal tract) in animals

**FIRST AID AND DECONTAMINATION**
**Remove** the person from exposure.

**Flush** eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.

**Remove** contaminated clothing and wash contaminated skin with soap and water.

**Begin** artificial respiration if breathing has stopped and CPR if necessary.

**Transfer** promptly to a medical facility.