

Common Name: **DIETHYLENE GLYCOL DINITRATE**

Synonyms: DEGDN; Diglycol Dinitrate

CAS No: 693-21-0

Molecular Formula:  $C_4H_8N_2O_7$

RTK Substance No: 0699

Description: Colorless, odorless, thick, oily liquid

## HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<b>2 - Health</b> <b>4 - Fire</b> <b>4 - Reactivity</b> <b>DOT#:</b> UN 0075 <b>ERG Guide #:</b> 112 <b>Hazard Class:</b> 1 (Explosive)	<p><b>Diethylene Glycol Dinitrate</b> is an EXPLOSIVE that can be ignited by HEAT, FRICTION, SHOCK, VIBRATION, and/or ELECTROSTATIC CHARGE.</p> <p><b>Diethylene Glycol Dinitrate</b> is FLAMMABLE and REACTIVE and a DANGEROUS FIRE and EXPLOSION HAZARD.</p> <p>DO NOT FIGHT FIRE. Evacuate area and let burn. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Nitrogen Oxides</i>.</p> <p>CONTAINERS MAY EXPLODE IN FIRE.</p> <p>Use water spray to keep fire-exposed containers cool.</p> <p><b>Diethylene Glycol Dinitrate</b> may ignite combustibles (wood, paper and oil).</p>	<p><b>Diethylene Glycol Dinitrate</b> is an EXTREMELY SENSITIVE EXPLOSIVE if not properly desensitized with an additive (phlegmatizer) for stabilization.</p> <p><b>Diethylene Glycol Dinitrate</b> may react with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); and REDUCING AGENTS (such as LITHIUM, SODIUM, ALUMINUM and their HYDRIDES), resulting in detonation.</p>

## SPILL/LEAKS

### Isolation Distance:

Spill: 800 meters (1/2 mile)

Fire: 1,600 meters (1 mile)

DO NOT CLEAN-UP OR DISPOSE OF EXCEPT UNDER SUPERVISION OF A SPECIALIST.

Keep **Diethylene Glycol Dinitrate** out of confined spaces, such as sewers, because of the possibility of an explosion.

DO NOT wash into sewer.

**Diethylene Glycol Dinitrate** is harmful to aquatic organisms.

## PHYSICAL PROPERTIES

<b>Odor Threshold:</b>	Odorless
<b>Flash Point:</b>	Explosive
<b>Vapor Pressure:</b>	0.00015 mm Hg at 68°F (20°C)
<b>Specific Gravity:</b>	1.4 (water = 1)
<b>Water Solubility:</b>	Slightly soluble
<b>Boiling Point:</b>	Decomposes at 387°F (197°C)
<b>Melting Point:</b>	11°F (-12°C)
<b>Molecular Weight:</b>	196

## EXPOSURE LIMITS

No occupational exposure limits have been established for **Diethylene Glycol Dinitrate**.

## PROTECTIVE EQUIPMENT

<b>Gloves:</b>	Butyl, Silver Shield®/4H® and Barrier® (>8-hr breakthrough for <i>Glycol Ethers</i> )
<b>Coveralls:</b>	Tychem® Responder® and TK (>8-hr breakthrough for <i>Glycol Ethers</i> )
<b>Respirator:</b>	SCBA

## HEALTH EFFECTS

<b>Eyes:</b>	No information
<b>Skin:</b>	No information
<b>Inhalation:</b>	Headache, fatigue, dizziness, and a blue color to the skin and lips ( <i>methemoglobinemia</i> )

## 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.