



MATERIAL SAFETY DATA SHEET

2,4-Dinitrofluorobenzene, 98%

CONTACT : **LEONID CHEMICALS**
Leonid Chemicals Pvt Ltd
62/A-2 1st Stage, Yeshwanthpur Industrial Suburb
Ashokpuram School Road
Bangalore-560 022, Karnataka, INDIA
Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: 2,4-Dinitrofluorobenzene, 98%

Catalog Numbers:

357

Synonyms:

1-Fluoro-2,4-dinitrobenzene; Sanger's Reagent; DNF

Company Identification

LEONID CHEMICALS

62/A-2 2nd Stage, Industrial Suburb

Yeshwanthpur, Bangalore -22, INDIA

Ph- +91-80-23378354

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	: 70-34-8
Chemical Name	: 2,4-Dinitrofluorobenzene
%	: 98%
EINECS#	: 200-734-3
Haz Symbols	: T
Risk Phrases	: 23/24/25 33 40 43 44

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Limited evidence of a carcinogenic effect. May cause sensitization by skin contact. Risk of explosion if heated under confinement. Cancer suspect agent.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause dermatitis. Toxic in contact with skin. This material is a vesicant, that is, it will induce blistering.

Ingestion:

May cause irritation of the digestive tract. Toxic if swallowed.

Inhalation:

May cause respiratory tract irritation. Toxic if inhaled.

Chronic:

Repeated exposure may cause sensitization dermatitis. Cancer suspect



agent.

SECTION 4 - FIRST AID MEASURES

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Risk of explosion if heated under confinement.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Vacuum or sweep up material and place into a suitable disposal container. Remove all sources of ignition. Use a spark-proof tool.

SECTION 7 - HANDLING and STORAGE

Handling:

Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.

Storage:

Store in a cool, dry place. Store in a tightly closed container.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Color:	yellow
Odor:	Not available.
pH:	Not available.
Vapor Pressure:	1mbar @20 deg C
Viscosity:	Not available.
Boiling Point:	296 deg C
Freezing/Melting Point:	23 - 26 deg C
Autoignition Temperature:	Not available.
Flash Point:	> 112 deg C (> 233.60 deg F)
Explosion Limits, lower:	Not available.
Explosion Limits, upper:	Not available.
Decomposition Temperature:	
Solubility in water:	400 mg/l (25° C)
Specific Gravity/Density:	1.480
Molecular Formula:	C ₆ H ₃ FN ₂ O ₄
Molecular Weight:	186.1

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

High temperatures, incompatible materials, ignition sources.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong bases.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, carbon dioxide, hydrogen fluoride gas.
Hazardous Polymerization: Has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:
CAS# 70-34-8: CZ7800000
LD50/LC50:
Not available.
Carcinogenicity:
2,4-Dinitrofluorobenzene -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:
log Pow = 1.83

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 - TRANSPORT INFORMATION

IATA
Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.*
Hazard Class: 6.1
UN Number: 2811
Packing Group: II
IMO
Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.
Hazard Class: 6.1
UN Number: 2811
Packing Group: II
RID/ADR
Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.
Hazard Class: 6.1
UN Number: 2811
Packing group: II

SECTION 15 - REGULATORY INFORMATION

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: T

Risk Phrases:

- R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R 33 Danger of cumulative effects.
R 40 Limited evidence of a carcinogenic effect.
R 43 May cause sensitization by skin contact.
R 44 Risk of explosion if heated under confinement.

Safety Phrases:

- S 28A After contact with skin, wash immediately with plenty of water.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 70-34-8: No information available.

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 70-34-8 is listed on Canada's DSL List.

CAS# 70-34-8 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 70-34-8 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION
--

MSDS Creation Date: 7/16/1996 Revision #1 Date: 1/09/2004

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.