

## Material Safety Data Sheet

### Dibutylamine

#### Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Dibutylamine

**Catalog Numbers:**

O2199 1, O2199 500, O2199-1, O2199-500, O21991, O2199500

**Synonyms:**

N-Butyl-1-butanamine, di-n-butylamine, di(n-butyl)amine

**Company Identification:**
Fisher Scientific - Fairlawn  
Fairlawn, NJ 07410
**Company Phone Number:**

(201) 796-7100

**Emergency Phone Number:**

(201) 796-7100

**CHEMTREC Phone Number, US:**

(800) 424-9300

**CHEMTREC Phone Number, Europe:**

(202) 483-7616

#### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ELINCS
111-92-2	Dibutylamine	100%	203-921-8

Hazard Symbols: F XN



Risk Phrases: 10 20/21/22

#### Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

*Appearance: clear, colorless*

*Danger! Corrosive. Combustible liquid. Harmful if swallowed. May be harmful if absorbed through the skin. Causes skin burns. Causes eye burns. Causes digestive tract burns. Causes respiratory tract burns. Flash Point: 105°F.*

*Target Organs: none.*

#### Potential Health Effects

**Eye:**

Contact with liquid or vapor causes severe burns and possible irreversible eye damage.

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**Skin:**

Causes skin burns. May be absorbed through the skin in harmful amounts.

**Ingestion:**

Harmful if swallowed. Causes gastrointestinal tract burns.

**Inhalation:**

May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.

**Chronic:**

No information found.

## 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 soap and water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:**

Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:**

Get medical aid immediately. Remove from exposure 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:**

Vapors can travel to a source of ignition and flash back. Material will burn in a fire. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

**Extinguishing Media:**

In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

**NFPA Rating:**

(estimated) Health: 3; Flammability: 1; Reactivity: 0

## 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., dry sand or earth), then place into a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Provide ventilation.

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### Section 7 - Handling and Storage

**Handling:**

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:**

Keep away from heat and flame. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits**

Chemical Name:	ACGIH	NIOSH	OSHA
Dibutylamine	None listed.	None listed.	None listed.

OSHA Vacated PELs

### Personal Protective Equipment

**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:**

Wear appropriate gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**

Follow the OSHA respirator regulations found in 29CFR 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:** Liquid

**Color:** clear, colorless

**Odor:** amine-like

**pH:** basic in solution.

**Vapor Pressure:** 23 mm Hg @ 20 C

**Vapor Density:** 4.5

**Evaporation Rate:** No information found.

**Viscosity:** 0.9 mPa s 20 C

**Boiling Point:** 159°C

**Freezing/Melting Point:** -60°C

**Autoignition Temperature:** 260°C ( 500.00°F)

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**Explosion Limits:** Lower: .60 Upper: 6.80  
**Flash Point:** 105°F (40.56°C)  
**Decomposition Temperature:** No information found.  
**Solubility in water:** soluble in water.  
**Specific Gravity/Density:** .767  
**Molecular Formula:** C<sub>8</sub>H<sub>19</sub>N  
**Molecular Weight:** 129.1397

**Section 10 - Stability and Reactivity****Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Incompatible materials, ignition sources, strong oxidants.

**Incompatibilities with Other Materials**

Strong oxidizing agents, carbon dioxide, acids, acid chlorides, halogenated compounds, and acid anhydrides

**Hazardous Decomposition Products**

Nitrogen oxides, carbon monoxide, carbon dioxide, amines.

**Hazardous Polymerization**

Has not been reported.

**Section 11 - Toxicological Information****RTECS:**

CAS# 111-92-2: HR7780000.

**LD50/LC50:**

CAS# 111-92-2:

Oral, mouse: LD50 = 290 mg/kg

Oral, rat: LD50 = 189 mg/kg

Skin, rabbit: LD50 = 1010 uL/kg.

**Carcinogenicity:**

CAS# 111-92-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:****Teratogenicity:****Reproductive:****Mutagenicity****Neurotoxicity****Other:**

See actual entry in RTECS for complete information.

**Section 12 - Ecological Information**

No information found.

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### Section 13 - Disposal Considerations

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

#### RCRA P Series Wastes

None of the components are on this list.

#### RCRA U Series Wastes

None of the components are on this list.

### Section 14 - Transport Information

	US DOT	IATA	IMO	RID/ADR	Canadian TDG
<b>Shipping Name:</b>	DI-N-BUTYLAMIN E	DI-n-BUTYLAMIN E	DI-n-BUTYLAMIN E	DI-n-BUTYLAMIN E	DI-N-BUTYLAMI NE
<b>Hazard Class:</b>	8	8	8	8(53B)	8(3)
<b>UN Number:</b>	UN2248	UN2248	UN2248	UN2248	UN2248
<b>Packing Group:</b>	II	II	II		II

### Section 15 - Regulatory Information

#### US Federal

##### TSCA

CAS# 111-92-2 is listed on the TSCA Inventory.

##### Health and Safety Reporting List

CAS# 111-92-2: Effective Date: June 1, 1987; Sunset Date: December 19, 1995

##### Chemical Test Rules

##### TSCA Section 12b

None of the components are on this list.

##### TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

##### CERCLA Reportable Quantities (RQ)

None of the components are on this list.

##### SARA Threshold Planning Quantities (TPQ)

None of the components are on this list.

##### SARA Hazard Categories

CAS# 111-92-2: acute, chronic, flammable.

##### SARA Section 313

None of the components are on this list.

##### Clean Air Act - Hazardous Air Pollutants (HAPs)

None of the components are on this list.

##### Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

##### Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

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**Dibutylamine****Clean Water Act - Hazardous Substances**

None of the components are on this list.

**Clean Water Act - Priority Pollutants**

None of the components are on this list.

**Clean Water Act - Toxic Pollutants**

None of the components are on this list.

**OSHA - Highly Hazardous**

None of the components are on this list.

**OSHA - Specifically Regulated Chemicals****US State****State Right to Know**

Dibutylamine can be found on the following state Right-to-Know lists: New Jersey, Florida, Pennsylvania, Massachusetts.

**California Prop 65****California No Significant Risk Level**

No information found.

**European/International Regulations****European Labelling in Accordance with EC Directives:**

Hazard Symbols: F XN

Risk Phrases: R 10 Flammable.

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

Safety Phrases: S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

No information found.

**United Kingdom Occupational Exposure Limits**

No information found.

**Canadian DSL/NDSL**

CAS# 111-92-2 is listed on Canada's DSL/NDSL List.

**Canadian WHMIS Classifications**

This product has a WHMIS classification of B3, D1A, E.

**Canada Ingredient Disclosure List**

CAS# 111-92-2 is not listed on Canada's Ingredient Disclosure List.

**Exposure Limits**

No information found.

**Section 16 - Other Information**

ACC# 06410



**Fisher Scientific**

Print Date: 5/30/00  
Revision Date: 5/30/2000  
Version: 1

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